MacWEEK

06.12.95 | *The Newsweekly for Macintosh Managers* | VOLUME 9 NUMBER 24

4D-based system keeps track of radioactive materials

See Problem Solving, Page 40

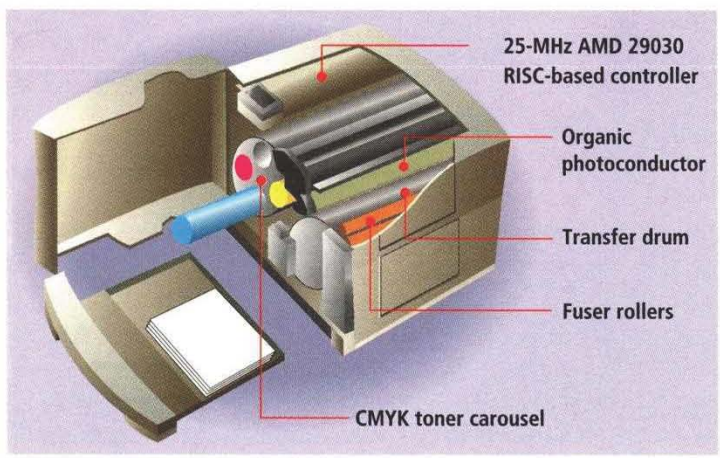
Apple's Color LaserWriter may spur sluggish market

By Matthew Rothenberg

When Apple unveils its color laser printer next week, its strength among graphics users may add momentum to a technology still seeking a market.

The Color LaserWriter 12/600 PS, which sources said will carry an ApplePrice of $6,989, reportedly is the first color laser based on long-awaited technology from Canon Inc. of Tokyo. Sources said the Apple device will precede other Canon-based offerings by several months.

See LaserWriter, Page 78



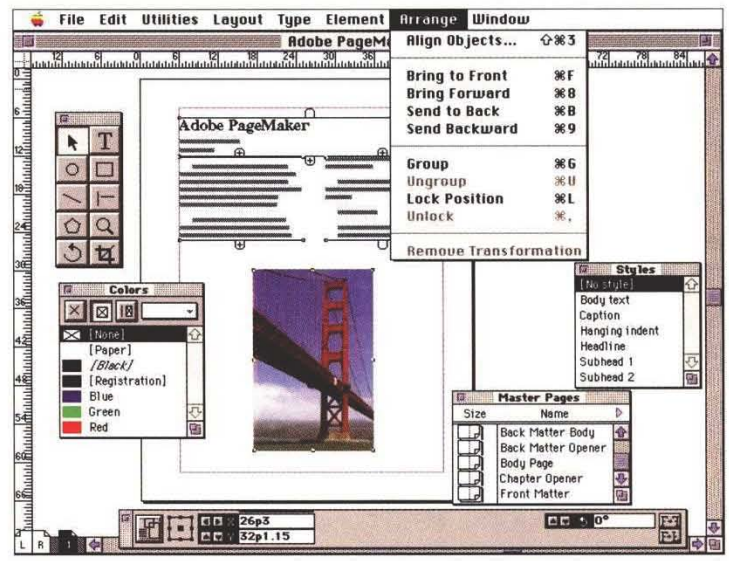
Adobe hones PageMaker

Version 6 to add CMS, trapping

By Carolyn Said

The next version of Adobe PageMaker is on track for a summer debut. Version 6.0, the first major PageMaker upgrade to ship from Adobe Systems Inc. of Mountain View, Calif., will offer new features for color, graphics handling and on-line publishing, as well as incorporate several capabilities previously available separately as Additions, sources said.

Overall, according to a source familiar with PageMaker 6.0: "The upgrade is not that dramatically different. PageMaker 7.0 is supposed to be the real Quark-killer." However, another source said, "Version 6.0 sure has a lot of things that have been requested by everybody forever."



Sporting more controls for object handling, PageMaker 6.0 will let users align, group and lock objects. A new Master Pages palette (bottom right) will provide a pop-up menu for creating and applying master pages.

PageMaker 6.0 will reportedly offer multiple master pages, a feature long included in arch-rival QuarkXPress from Denver-based Quark Inc. and long requested by PageMaker users. A new Master Pages palette will offer a pop-up menu for creating and applying master pages.

According to sources, Adobe will include the Kodak Precision Color Management System with

See PageMaker, Page 78

IBM to join Radius clone team

Ingram, Adobe round out lineup

By Mark Hall

One of the industry's heaviest hitters has lined up behind Radius Inc. to help support its Macintosh clone efforts. IBM Corp. will soon announce a pact with the Sunnyvale, Calif.-based company to manufacture its clones. Meanwhile, Radius is strengthening digital video ties with Adobe Systems Inc.

Sources close to Armonk, N.Y.-based IBM told MacWEEK that the company's Microelectronics Division (IMD) will build Radius clones out of its manufacturing facility in Charlotte, N.C. The computers will carry the Radius label and be exclusively distributed by Ingram Micro Inc. of Santa Ana, Calif., for retail sales (see MacWEEK, June 5, Page 4).

The new systems will reportedly use both 601 and 604 PowerPC CPUs and incorporate the PCI bus. One source, citing IBM's overhead, said, "These machines are not going to be available at rock-bottom prices." But another source said Radius intends to offer an 80-MHz "deconfigured" 601-based Mac clone. This stripped-down machine would be attractive to value-added resellers and some retailers, who would be able to customize the machine with higher margin peripherals, the source claimed.

IMD is said to have been given the nod for the deal by IBM's Per-

See Radius, Page 80

PCI Thunder ready to roll

By David Morgenstern

Radius Inc. will leap on board the PCI bus next week with cheaper and speedier versions of its PrecisionColor and Thunder display and graphics-acceleration boards. Sources said the new cards are expected to ship concurrently with Apple's Power Mac 9500 models.

The $550 PrecisionColor

See Thunder, Page 80

NEWS ANALYSIS

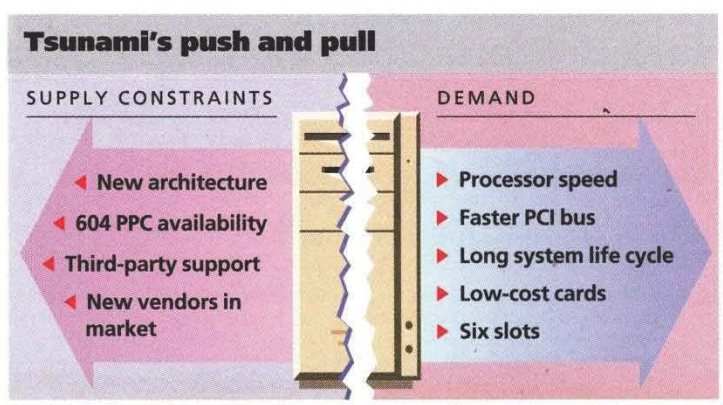
Tsunamis to trickle in

By MacWEEK staff

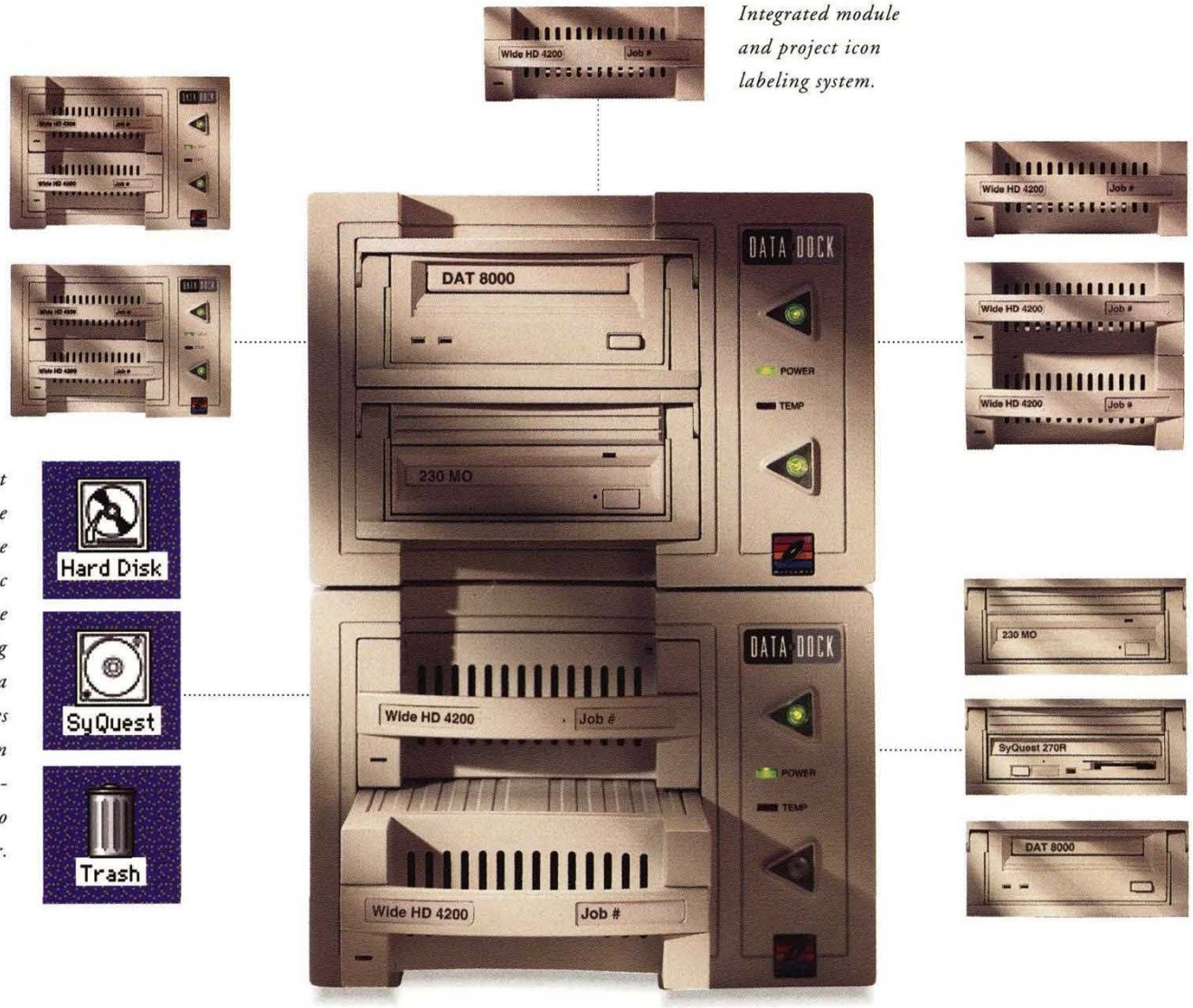
The first PCI-based Power Macs, code-named Tsunami, are expected to take the high-end graphics and publishing markets by storm. However, sales forecasts for initial acceptance beyond those markets remain cloudy.

Although the Power Mac 9500/120 and 9500/132 — due to ship next week — should offer high levels of performance and a flexible, high-speed bus, analysts, dealers and users expressed conflicting views on their early adop-

See Tsunamis, Page 80



NEWSPAPER SECOND CLASS



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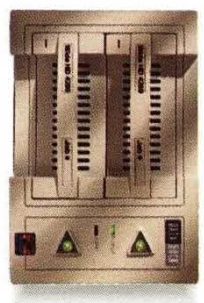

DataDock Desktop (platinum) in vertical orientation

DataDock Desktop (black) in vertical orientation

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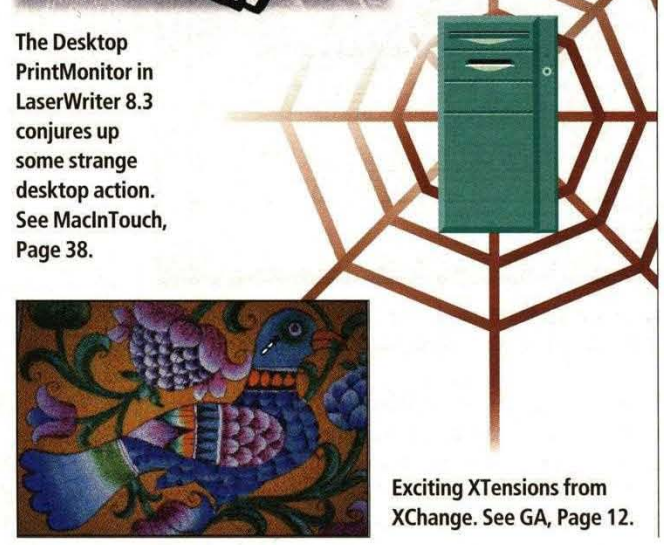
Desktop publishers are finding their way to the Web now that reliable servers are available. See Gateways, Page 16 and Solutions, Page 37.



The Desktop PrintMonitor in LaserWriter 8.3 conjures up some strange desktop action. See MacInTouch, Page 38.

Exciting XTensions from XChange. See GA, Page 12.

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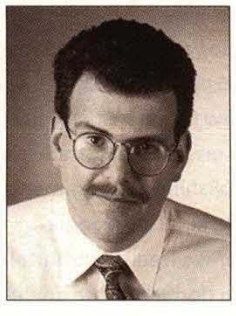
MACWEEK INSIDER ANDREW GORE

For want of a shelf ...

Despite what self-help guru Robert Fulghum might say, I didn't learn everything I need to know in kindergarten. However, I did pick up a few helpful tips.

Take, for example, the nursery rhyme, "For want of a nail the shoe was lost; for want of a shoe the horse was lost ..." This bit of preschool wisdom came to mind last week during an attempt to track down a certain program for my Mac. Only after visiting three different software boutiques did I find the application.

Now, this shouldn't come as a big surprise. There are lots of reasons why you might not find a particular title at a store. For example, the application could be out of stock, a perfectly logical reason why I might have to hit three different malls to find the program.



Logical, but wrong. The reason why what I was looking for wasn't on these retailers' Mac shelves is that they had no Mac shelves.

Chronic Macintosh supply shortages have been extensively documented here, a serious problem that should not be quickly dismissed or overlooked. In fact, as sad as this sounds, the problem has become something of a joke, even at Apple. Legend has it that the conference rooms in Apple's executive suite are named for well-known oxymorons: military intelligence, jumbo shrimp and Apple forecasting.

But even as Apple wrestles with supply and demand for its next round of Power Macs (see story, Page 1), it seems to me that making sure buyers of PCI Macs can find software for their slick new machines is at least as important as making sure there are enough slick new machines to go around.

To fix Macintosh shelf space, Apple first needs to determine why it doesn't seem to get the representation that even market share would seem to dictate. According to the Software Publishers Association, Mac software market share is higher than Mac hardware, some 18 percent. This is because Mac customers buy more software per capita than DOS and Windows users.

You would think this propensity among Mac users to spend their software dollars so liberally would be enough to garner a rack or two of display space in a software store. Resellers aren't stupid — they stock what sells. So, the only conclusion I can draw is either there isn't enough Mac software or Apple doesn't do enough to promote what Mac software there is.

If all buyers see is Windows titles, they will think hardly any are on the Mac.

With the millions of Macs in the home market, the local computer retailer should be brimming over with Mac products. But if you look at the kind of software most consumers buy — games and home finance — you'll notice a shocking lack of these titles for the Mac. And, when the demand is there, the responsibility for a title drought must ultimately fall on developer evangelism — another Apple oxymoron.

Combine this with the fact that Apple does absolutely nothing to promote what few good consumer titles there are on the Mac and you can begin to see why retailers don't stock Mac products. Game companies understand that it is titles that sell their consoles. At least I don't remember seeing anything like "The Power to Play Your Best" in Sega commercials. Even Microsoft Corp.'s more recent advertising seems to reflect an understanding that it is software that sells the computer.

The consequences of not addressing the Mac's ever-diminishing shelf space is this: Perception is reality. If all customers see when they walk in the store are Windows titles, the natural conclusion they will draw is that there's hardly anything running on the Mac. Or worse, they won't think about the Mac at all.

At that point it won't matter if there are a lot of good Mac business and graphics applications available through mail order. Because, for lack of a shelf the application won't sell, and for lack of the sale the developer won't support the platform, and without developer support the Mac won't ... well, you can probably finish that thought.□

Andrew Gore is MacWEEK's executive editor/news. He gladly accepts feedback at andy_gore@macweek.ziff.com.

MacWEEK (ISSN 0892-8118) is published weekly, with the exception of July 3, Nov. 20, and Dec. 18 and 25, by Ziff-Davis Publishing Co., 1 Park Ave., New York, N.Y. 10016. Single-copy price, including postage: $6. One-year subscription rate: U.S., $125; Canada/Mexico, U.S. $225; International, U.S. $350 (airmail). All orders must be prepaid. Direct **subscription inquiries** to Customer Service Department, MacWEEK, c/o JCI, P.O. Box 1766, Riverton, N.J. 08077-7366; (609) 786-8230. **Changes of address** require that a new application be filled out completely and include both new and old addresses. Allow four to six weeks for processing. We periodically make lists of our customers available to carefully screened mailers of quality goods and services. If you do not wish to receive such mailings, please let us know by writing to us at Customer Service Department, MacWEEK, P.O. Box 10633, Riverton, N.J. 08076-0633. **Postmaster:** Send address changes to MacWEEK, P.O. Box 1766, Riverton, N.J. 08077-7366. Second-class postage paid at New York and additional mailing offices. Printed in U.S.A. Canada Post International Publications Mail Product (Canadian Distribution) Sales Agreement No. 410667.

Now ships new PIMs

Up-to-Date gains to-do list, Contact notes improved

By James Staten

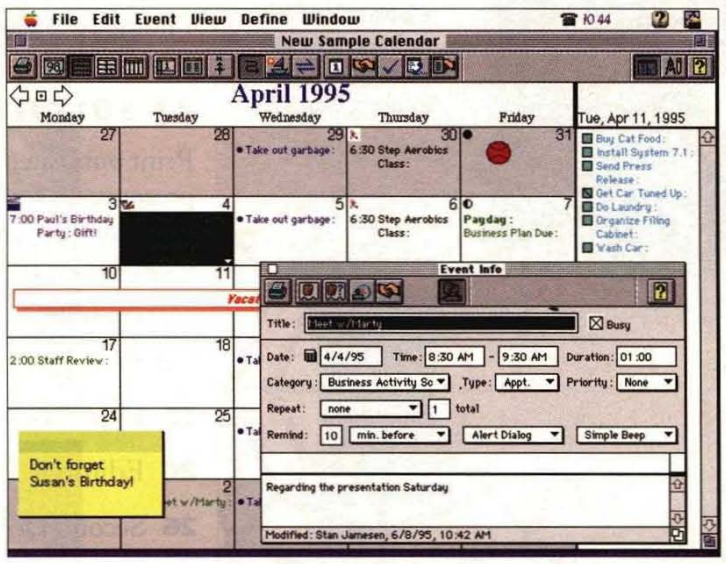
Now Software Inc. this week will ship Version 3.5 of both Now Up-to-Date and Now Contact and announce a synchronization tool for use with Newton-based PDAs.

Now Up-to-Date 3.5 features a new to-do list visible from any calendar view, enhanced event-scheduling functions, and banners that are shown in all views and can wrap across multiple weeks.

Now Contact 3.5 features improved drag-and-drop support throughout the application and a new free-form notes field.

Both products include QuickNote, a stand-alone program that allows users to create new appointments, calls and to-dos and automatically integrates them with the user's calendar and address book.

The products remain priced at $99 individually or $149 when bundled together. Upgrades to the bundle from Version 3.0 of either are $19.95. Upgrades from versions prior to 3.0 are $29.95 for a single product or $49.95 for both.



Now Up-to-Date 3.5 has a new to-do list visible in any calendar view and a check box to show that the user will not be available during certain events.

The company also announced Now Synchronize, two tools that will keep the Dates and Names lists on a Newton PDA reconciled with Mac-based Now Contact and Now Up-to-Date files. The tools will not require Apple's Newton Connection Kit for reconciliation.

Now Synchronize is expected to ship later this month and will be priced at $49.95 or $29.95 if bought directly from Now.

Now Software Inc. of Portland, Ore., is at (503) 274-2800 or (800) 237-2078; fax (503) 274-0670; info@nowsoft.com. □

Free Mac list server

By Nathalie Welch

In his spare time, a cellular biologist at Cornell University Medical College is creating a free Mac-based list server that could prop up the Mac's standing when it comes to managing group e-mail distribution on the Internet.

Written by Michele Fuortes under the moniker Leuca Software, Macjordomo puts a friendly interface on the core feature set of the popular Unix-based list server Majordomo. Though not a port, Fuortes' Mac version handles logging of mail and transmission errors, loop prevention, automatic replies, and importing and exporting of user lists like its Unix role model.

Macjordomo will also understand many standard in-bound, e-mail-based text commands, including Subscribe, Unsubscribe, Review, List, Get, Index, Help, Conceal, Unconceal, Digest, Mail, Active and Inactive.

The program is currently in beta testing. Version 1.0 is expected to be released in early July and will require System 7, MacTCP, and a 68030 or higher CPU.

Fuortes designed Macjordomo to be easy to configure. Although optimized to work with MailShare, the Mac-based Internet mail server that runs Post Office Protocol and SMTP (Simple Mail Transfer Protocol), Macjordomo will work with any server compliant with those standards, Fuortes said.

"I am teaching a class on setting up Internet services from work or home, and Macjordomo is definitely in my setup, along with greats like WebStar, MailShare, AppleShare and FTPd," said Robert Sfeir, network administrator at the College of Notre Dame in Belmont, Calif. "The best thing about Macjordomo is its flexibility; I can call the listserv account anything I want, something that lacks in other list servers."

Users can download current and future versions of Macjordomo at http://leuca.med.cornell.edu/Macjordomo. □

Organizer price halved

Claris Corp. last week dropped the price of Organizer, its personal information manager, by nearly 50 percent.

Claris Organizer now costs $49, down from $99; the company said the price will remain at $49 until Dec. 31.

"We've been hearing from our retailers that if we price it below $50 we'll pull in all sorts of people we wouldn't normally reach," said Peter Heller, Organizer product manager.

Claris Organizer is an all-in-one address book, calendar, task manager and notes database. It provides automatic linking of names and dates, drag-and-drop scheduling and custom views.

Claris Corp. of Santa Clara, Calif., can be reached at (408) 987-7000 or (800) 325-2747; fax (408) 987-3932; info@claris.com; http://www.claris.com. □

IBM and Motorola unveil faster 604s

By Robert Hess

IBM Corp. and Motorola Inc. this week will announce two higher-speed implementations of the PowerPC 604 chip that effectively double the performance of their chips of a year ago. In addition, Apple will confirm plans to use both versions of the processor in Macs.

The 604 will be available in 120- and 133-MHz versions. Apple is reportedly planning to reduce the speed at which the faster chip operates to 132 MHz in its forthcoming Power Mac 9500/132. Sources speculated Apple has made this move so it can set the processor bus to 44 MHz, thereby reducing the complexity and cost of other components on the logic board.

Motorola of Schaumburg, Ill., and IBM of Armonk, N.Y., said the 133-MHz chip delivers 200 SPECint92 and 200 SPECfp92, which the companies said makes it the first desktop computer microprocessor to reach that level. The companies said at that rating, the chips exceed all Pentium performance and roughly match that of Intel Corp.'s forthcoming P6 microprocessor.

"It could be another generation of processors before Intel sees the performance we get with the 604 today," said David Ryan, PowerPC product line marketing manager. By that time, he said, faster implementations of the 604 processor will be available, maintaining the lead.

The new PowerPC processors have 3.6 million transistors, measure 12.4mm by 15.8mm and will be built with a 0.5-micron process. They have dual 16-Kbyte instruction caches.

Both Motorola and IBM will manufacture the new processors, with volume production expected in the second half of this year. They confirmed that no new versions of the PowerPC 601 are expected. □

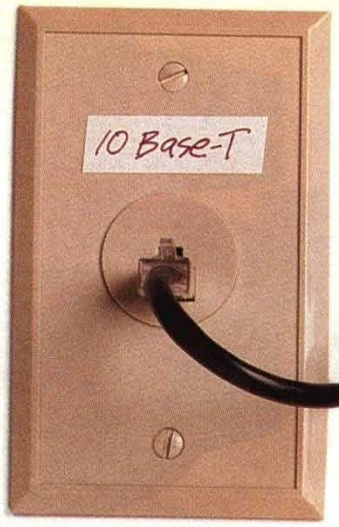
FRAMEMAKER 5 GOES ON-LINE

Frame Technology Corp. last week shipped Version 5.0 of FrameMaker, its $895 document-authoring application (see MacWEEK, April 3, Page 10). New layout features include text runarounds as well as headlines and graphics that straddle multiple columns.

On-line publishing enhancements include an integrated HTML (Hypertext Markup Language) converter; support for Adobe Acrobat 2.0; and a freely distributable copy of FrameReader, which lets users who don't own the application view FrameMaker files.

Upgrades are free with a support subscription or $225 without.

Frame Technology Corp. of San Jose, Calif., can be reached at (408) 975-6000; fax (408) 975-6600.



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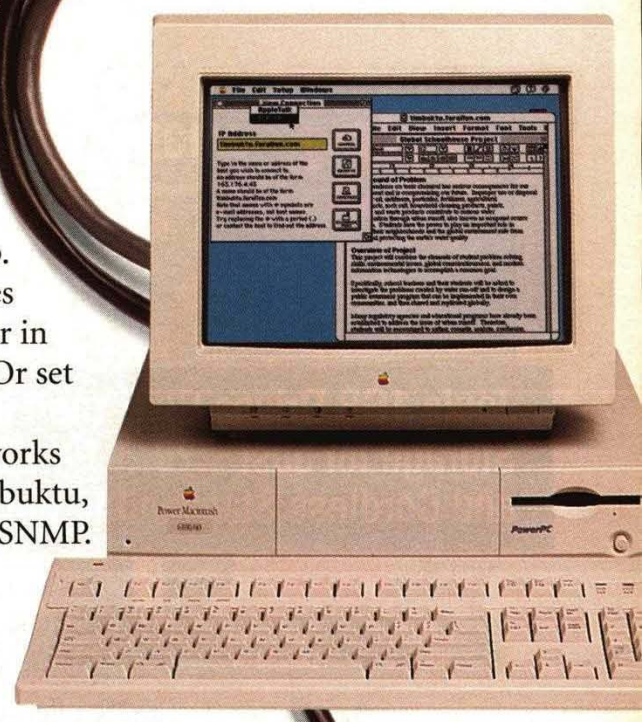

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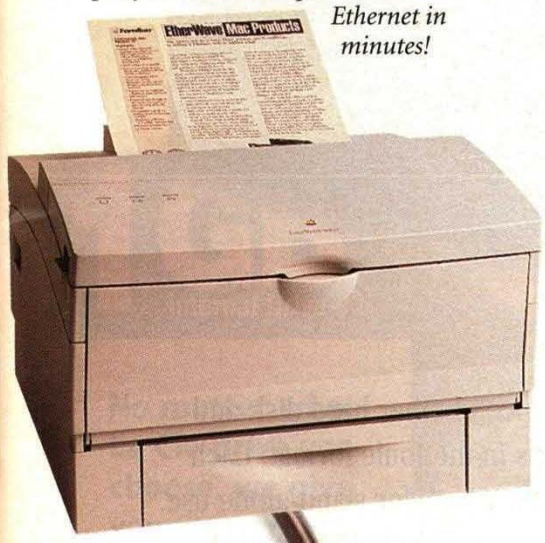

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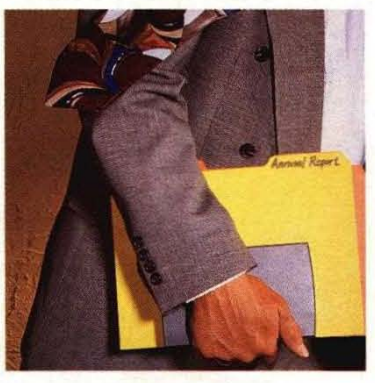

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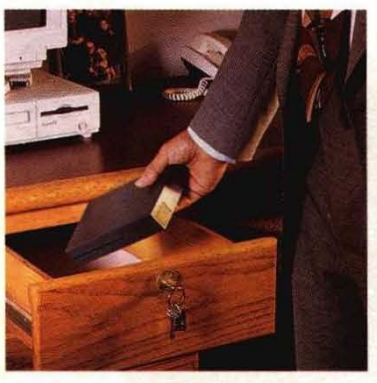

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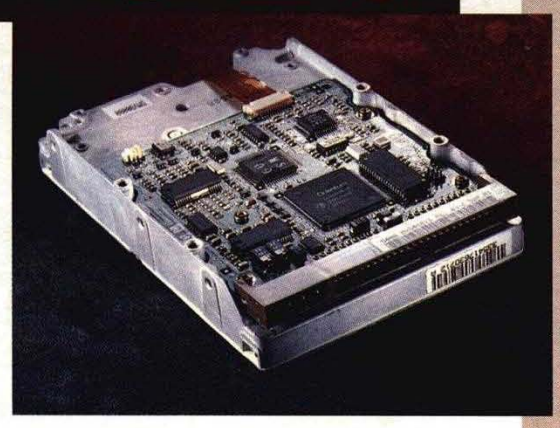

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$429 Joule 1080MB Hard Drive

* These drives are also available in Joule Base configurations for an additional $60.

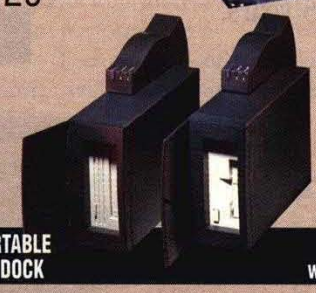
† Brackets available for $10 with HD purchase

2.5" Hard Drives
Quantum – 2 year warranty

256MB	$219	$319
341MB	$249	$349
514MB	$329	$429

2-½" Internal 256MB

Joule Removable Drives



Joule Portable SyQuest 270MB
$489 With FREE Cartridge

	INTERNAL w/ BRACKET	PORTABLE w/ DOCK

230MB Fujitsu Optical Drive
$549 $649*
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SyQuest Drives
With 1 Free Cartridge – 1 Year Warranty

270MB	$419	$489*
200MB†	$439	

* These drives are also available in Joule Base configurations for an additional $60.

† 200MB SyQuest Drives are also available in Joule Base configurations for an additional $60.

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30 Day Money Back Guarantee*

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730MB	$229	$329

• Five year warranty upgrade available $19.95

Quantum – 5 year warranty		
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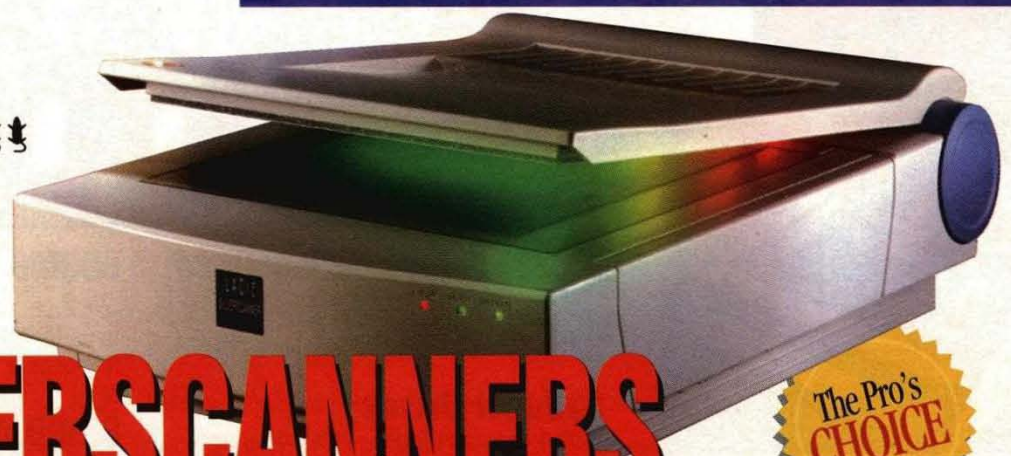
2150MB	$799	$899
4300MB	$1299	$1399

• Free software with La Cie Drives including Silverlining, Ziff-Davis MacBench, EZ Label and Virtual Disk.



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Project adds help tools

Version 4.0 gets agents, simple calendar view

By David Morgenstern

A recent upgrade to Microsoft Project brings agents and a new calendar view to the aid of Macintosh planners.

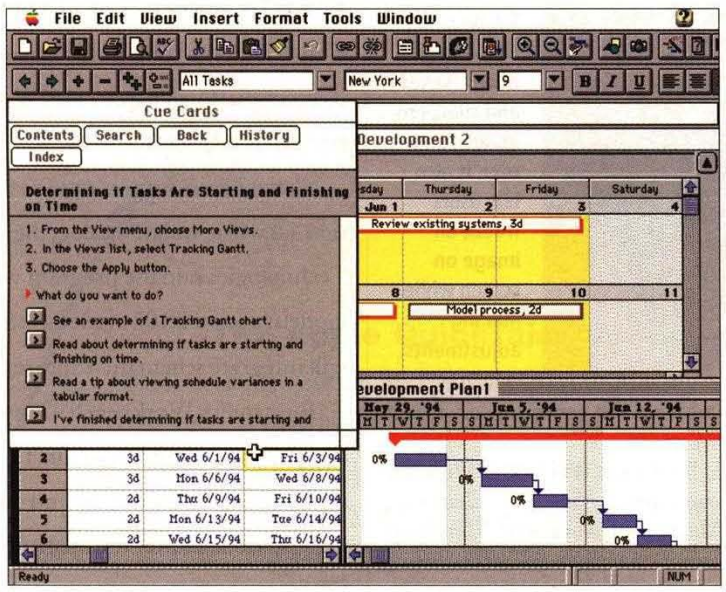
Microsoft Corp. said Version 4.0 of the $469 application, available now for 680x0-based Macs, will run native on Power Mac desktops by July.

The company said Project 4.0 gives users a better handle on tools and functions via more than 30 IntelliSense agents, called wizards, as well as Cue Cards, a new help function. The cards, which float above document windows, offer step-by-step instruction and definitions.

A new Planning wizard can follow users' actions, point out short cuts and offer suggestions. Another Project 4.0 wizard automates Gantt chart creation, providing previews of possible actions when building a document.

According to Microsoft, the expanded guides are aimed at those Project users — more than 50 percent — who are newcomers to project-management software.

An interactive calendar view is designed to present a more familiar paradigm to neophyte users than traditional Gantt charts. Projects can be created, modified and printed in the calendar view.


File Edit View Insert Format Tools Window
All Tasks
New York
Cue Cards
Contents
Search
Back
History
Index
Determining if Tasks Are Starting and Finishing on Time
1. From the View menu, choose More Views.
2. In the Views list, select Tracking Gantt.
3. Choose the Apply button.
What do you want to do?
See an example of a Tracking Gantt chart.
Read about determining if tasks are starting and finishing on time.
Read a tip about viewing schedule variances in a tabular format.
I've finished determining if tasks are starting and
Development 2
Thursday
Friday
Saturday
Review existing systems, 3d
Model process, 2d
Development Plan1
Ready
NUM

Project 4.0's Cue Card help system has hypertext links and pop-up definitions. An interactive calendar view offers users an alternative to Gantt charts.

Besides graphical images, QuickTime movies and text, Gantt charts can now include arrows to represent task relationships.

Project 4.0 also borrows many interface enhancements from Excel, including drag-and-drop elements, zoom views in charts, multiple tool bars and shortcut menus.

Up to 80 projects can be consolidated into a common resource pool, Microsoft said. Project information is updated automatically among files, making it easier for managers to track workloads for part-time employees and workers with multiple jobs.

The new release resolves problems users encountered with Project's previous file structure. Earlier versions used multiple files for different types of data, sometimes leading users to miss one or more parts when copying files; Project 4.0 unifies the parts into a single file.

Project 4.0 also rolls in Microsoft's Visual Basic, Applications Edition, for macro programming and extends Project's integration with other Microsoft Office applications via OLE 2.0 support. Users can link cost and resource details in Excel files to projects and task data in Project.

Users of previous versions can upgrade for $149.

Microsoft Corp. of Redmond, Wash., can be reached at (800) 426-9400; fax (206) 936-7329. □

Vendors shed light on DIMM solutions

By James Staten

Users eager for the coming crop of Power Macs can stock up early on memory or take their current supply with them thanks to new products from Memory International Inc., Microtech International Inc., PNY Electronics Inc. and SimmSaver Technology Inc.

With the new Power Macs, Apple will switch dynamic RAM memory standards from 72-pin SIMMs to 168-pin DIMMs (dual in-line memory modules). This new standard will provide a 64-bit data path, compared with 32 bits for the previous standard, and allow users to install up to 1 Gbyte of RAM (see MacWEEK, Feb. 20, Page 4). According to sources, the new memory will provide an incremental increase in overall system performance.

SimmSaver Technology of Wichita, Kan., will ease this transition for many users through its DimmSavers. These accessories, which will ship concurrently with the Power Mac 9500 next week, hold two like-configured 72-pin SIMMs and allow them to function as a single 168-pin DIMM. According to the company, DimmSavers install into standard DIMM slots but will block the adjacent RAM socket.

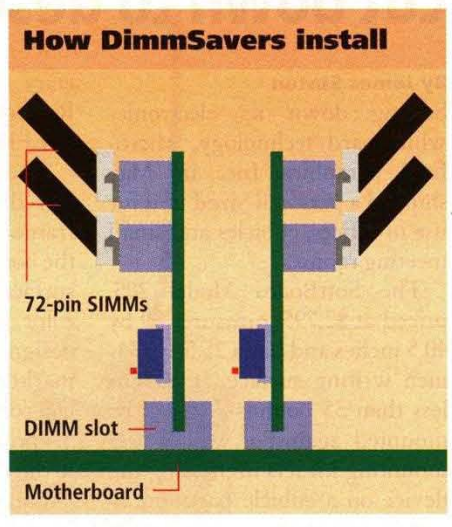
Three modules will be available: left- and right-facing units priced at $79 each, so users can fill two adjacent sockets simultaneously, and a reversible module priced at $89. SimmSaver said users who buy DimmSavers during the first three months after the new Power Macs ship will receive a $20 discount.

PNY Electronics of Moonachie, N.J., in July will ship DRAM DIMMs as well as a 256-Kbyte static RAM Level 2 cache. The DRAM will come in 8-, 16- and 32-Mbyte configurations and will be priced from about $600 to $2,400. The Level 2 cache will be priced at about $180.

Memory International of Irvine, Calif., next week will ship DIMM DRAM in configurations from 4 to 128 Mbytes. According to the company, the memory will be priced from about $290 to $4,000.

Microtech International of East Haven, Conn., will ship 8-, 16- and 32-Mbyte DIMMs later this month priced from about $600 to $2,400.

Memory prices are in a state of volatility that is expected to continue throughout the summer; they could change dramatically by the time the chips ship. □



MountainGate trots out storage

By David Morgenstern

MountainGate International Inc. next week will help users round up hard drives when it delivers Stampede, a new series of desktop and rackmount modular storage systems.

Stampede chassis come with either two, four or eight drive bays for modules holding 3.5- and 5.25-inch mechanisms; the larger modules take up a pair of slots. MountainGate said the Fast and Wide SCSI-2 units use an impedance-matched backplane and automatically support Fast SCSI-2 drives.

Stampede systems support hot-plugging of modules; an as-yet-unpriced logical unit-number board will support multiple units encompassing more than 400 Gbytes. MountainGate said it will offer modules with DAT and digital linear tape mechanisms later this summer.

Fast SCSI-2 drive modules in capacities of 2, 4 and 9 Gbytes cost $1,930, $2,520 and $4,230, respectively; Fast and Wide modules cost $2,050, $2,730 and $4,990, respectively. MountainGate said its module connectors have a mean swaps-between-failure rating of 25,000.

The eight-bay model ships in $1,760 rackmount, $1,870 horizontal and $1,990 pedestal configurations. The units have dual, redundant fans and 300-watt power supplies that are not hot-swappable.

The $760 two-bay and $1,000 four-bay desktop storage systems each have a single fan and power supply.

MountainGate International Inc. of Reno, Nev., a Lockheed company, can be reached at (702) 851-9393 or (800) 556-0222; fax (702) 851-5533. □

For the record

A headline in the June 5 issue (Page 1) misstated the reported capacity of Iomega Corp.'s forthcoming Viper drive. As the story stated, sources said the actual capacity is 1 Gbyte.

Checkfree goes electronic

By Jon Swartz

Checkfree Corp. is joining forces with half a dozen leading developers of accounting software to create a global commercial electronic payment service.

Beginning in late summer, the company said, it will launch the Checkfree Commercial Payment Service, the first in a series of electronic commerce services aimed at letting users pay any bill to any vendor through any U.S. bank.

According to Mark Johnson, Checkfree executive vice president of business development, Checkfree's service will be embedded in software from Champion Business Systems Inc., CYMA, DacEasy Inc., Data Pro Accounting Software, New England Business Service Inc. and Platinum Software. Combined, those companies account for nearly 1 million customers.

Johnson said Checkfree will name several more partners to its financial service by the end of the month.

Checkfree Corp. of Columbus, Ohio, can be reached at (614) 825-3000 or (800) 877-8021; fax (614) 825-3244; http://www.checkfree.com. □

TView improves clarity

Converter cuts video flicker, sharpens text

By James Staten

Consumer Technology Northwest Inc. this week will announce a new personal computer-to-TV converter that it claims sets new standards for clarity and sharpness.

The $499 TView, which will ship in July, includes advanced circuitry to reduce video flicker and sharpen the appearance of images and text, the company said.

Rather than eliminating video scan lines to reduce an image to television resolution — which often causes the video output to flicker — TView uses a line-averaging technique in its video-stabilizing circuitry. Additional circuitry then cleans up any residual image smearing so text appears sharp and colors vibrant, Consumer Technology said. The device uses a switchable signal-processing filter to further improve image output on lower-quality televisions.

TView's circuitry reduces flicker and sharpens images and text. It also lets users freeze an image on screen while making adjustments.

In addition, TView features a freeze button that lets a presenter lock a company logo or starting slide on screen while setting up or running through the presentation on the computer. It also includes controls for centering an image on screen.

The unit will come with the company's $34.95 Electronic Marker software, which lets users annotate images on screen using a variety of digital indicators, including arrows, pointers and colored pens.

Consumer Technology Northwest Inc. of Beaverton, Ore., can be reached at (503) 643-1662 or (800) 356-3940; fax (503) 671-9066. □

Microfield's whiteboard cut down to desktop size

By James Staten

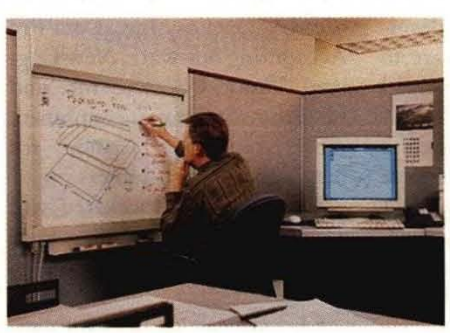
Scaling down its electronic-whiteboard technology, Microfield Graphics Inc. in May shipped a personal-sized unit for use in offices, cubicles and small meeting rooms.

The SoftBoard Model 205, priced at $2,795, measures 39 by 40.5 inches and has a 25.5-by-34-inch writing surface. It weighs less than 35 pounds and can be mounted against a wall; a $99 mounting kit lets users hang the device on a cubicle partition or stand it on a desk.

Like earlier SoftBoards, the new model connects to a Mac or Intel-standard PC via a serial connection and stores all writing and erasing done on the board using proprietary 680x0-based SoftBoard Recorder software (see MacWEEK, Oct. 31, 1994, Page 7).

The company said two infrared lasers inside the board's frame scan a quarter-inch above the board's porcelain-coated steel surface to locate and identify the color and position of specially designed SoftBoard dry-erase markers equipped with reflective bar-coded sleeves. A digital signal processor then relays this data to the computer.

Users can share SoftBoard data in real time with others in a conference or on a network; users who purchase the company's $145 SoftBoard Remote software can also share data with other sites. SoftBoard communicates with PictureTel Corp.'s System 4000 and VTEL Corp.'s conferencing systems.



The diminutive SoftBoard Model 205 connects to Macs via a serial port. An optional mounting kit lets users hang the electronic whiteboard on a cubicle wall.

The Model 205 also includes SoftBoard Viewer, a royalty-free player application that lets users review a SoftBoard session off-line. The Model 205 is covered by a one-year warranty.

Microfield Graphics Inc. of Beaverton, Ore., is at (503) 626-9393 or (800) 334-4922; fax (503) 641-9333. □

Lind cleans up PB 500 batteries

By Robert Hess

Lind Electronics Inc., vendor of a wide range of PowerBook peripherals and add-ons, late last month announced it shipped the Lind Conditioner 500. The new device eliminates the memory effect prevalent in the "intelligent" batteries used in the PowerBook 500 line.

The memory effect, which can occur when a battery is repeatedly recharged without first being discharged completely, can shorten battery life and impede performance.

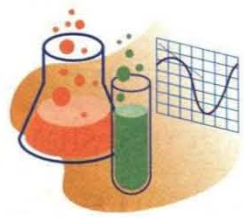
The product discharges the battery to 8 volts, which the company said keeps the battery free of the memory effect. Apple typically recommends users manually recondition their batteries once a month to avoid this situation, Lind said.

The Conditioner 500 weighs 4 ounces and measures 1.5 by 2.2 by 5 inches. It does not require AC power to operate.

It is available now for $39.95, or $94.95 bundled with battery-management software and Lind's SingleCharger 500, a battery recharger.

Lind Electronics Inc. of Minneapolis can be reached at (612) 927-6303; fax (612) 927-7740; lrlind@aol.com. □

SCIENCE & TECH BEAT



Workbench to mix modes. Interactive Image Technologies Ltd. of Toronto will facilitate electrical tinkering with an update to its cross-platform Electronics Workbench circuit-simulation software.

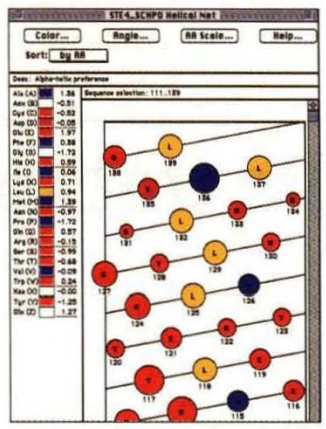
Slated for an August release, the $299 Version 4.0 will simulate analog, digital and mixed-mode circuits. Image Technologies said the program will ship with more than 350 part models; a set of 2,100 models costs an additional $200. The software will integrate schematic-capture and waveform-generation features.

Electronics Workbench 4.0 will let users drag and drop parts and components to build a circuit. The package includes an oscilloscope, multimeter, logic analyzer and converter, function and word generator, and Bode plotter test-instrument simulations. The upgrade is $79 for users of previous versions. Phone (416) 977-5550 or (800) 263-5552; fax (416) 977-1818; ewb@interactiv.com.

National punches in with LabVIEW update. Giving users a handle on data, National Instruments Inc. of Austin, Texas, this month shipped an update to Joint Time-Frequency Analysis Toolkit, its cross-platform software for the LabVIEW data-acquisition package.

Version 3.1 of the $495 add-on to LabVIEW's virtual-instrument library comes with more than two dozen preset data-acquisition modules. The new version also saves waveform, spectrogram and power-spectrum data in a spreadsheet format for analysis. Users of previous versions can upgrade for $295. Phone (512) 794-0100 or (800) 433-3488; fax (512) 794-8411; info@natinst.com.

GeneWorks composes DNA pictures. IntelliGenetics Inc. of Mountain View, Calif., recently uncorked an update of its GeneWorks DNA-analysis package.



Version 2.4 of the $2,950 software adds a helical-net function that lets users view protein structures in two dimensions. The angle parameters are adjustable, as are the color settings of amino acids, which can represent different physical and chemical properties. Phone (415) 962-7300; fax (415) 962-7302.

Sciopt sheds light on laser data. Focusing on optical-design performance, Sciopt Enterprises of San Jose, Calif., recently shipped a Power Macintosh-native version of Paraxia, its $1,595 laser design and analysis package.

Running on a Power Mac, Paraxia 2.0.1 computes Fast Fourier transforms up to 39 times faster than the 680x0-based Version 2.0 in emulation mode, Sciopt said. The new version benefits calculations of large point sets, the company said. The update costs $495. Phone (408) 268-8934; fax (408) 268-9050; ghsciopt.netcom.com.

— By David Morgenstern

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Scan Best Picture

Take Film to Lab

Manipulate Scan

Finish Roll

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Apple

Mac OS For Windows

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GA

GRAPHICS FX

Illustrator plug-ins, low-cost image editor help users enhance graphics. See Reviews, pages 32 and 33.

3-D developers emerge

More support for QuickDraw 3D

By Donna Raskin

Apple continues to find third-party developers who will use QuickDraw 3D to help dissolve the walls between dimensions on the desktop. Last week Apple announced more companies that will revise products to support its forthcoming system-level scheme for 3-D interaction.

Apple also released a beta version of the QuickDraw 3D API and published the specification for its platform-independent 3-D metafile format (3D MF), which will let users cut and paste fully rendered 3-D objects between applications.

Most developers said their initial support of QuickDraw 3D would be in letting their applications read and write 3D MF.

Fractal Design Corp. of Aptos, Calif., plans to make a future version of its Poser human-figure modeling application 3D MF–savvy, while Kandu Software Corp. of Falls Church, Va., will upgrade its CADmover to work with 3D MF.

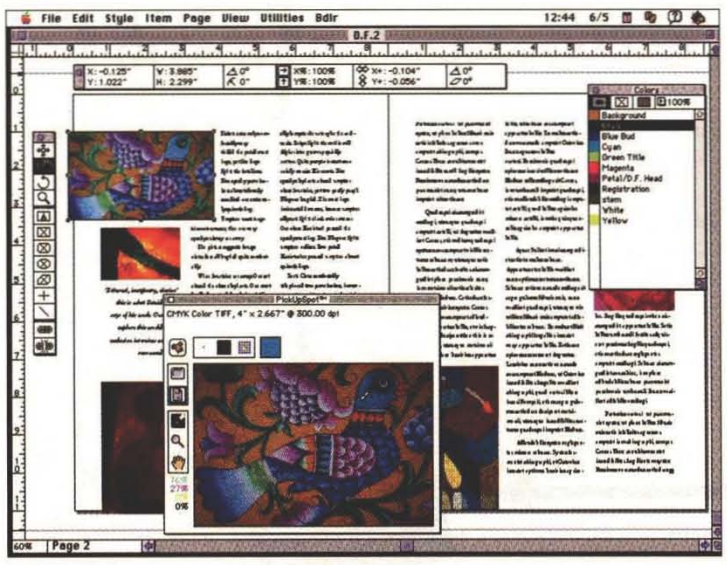
Other software developers who will add QuickDraw 3D support to applications are Linker Systems Inc. of Irvine, Calif., which will upgrade Animation Stand, its 2-D animation program; the Valis Group of Tiburon, Calif., which will upgrade PixelPutty; SketchTech Inc. of Minneapolis, which by year-end will release Version 3.0 of Up Front, its modeling and animation program; and MacPlay, a division of Interplay of Irvine, Calif., which is planning a QuickDraw 3D version of its game, Dissent, for release this year.

MicroSpot USA Inc. of Saratoga, Calif., will write a new 3-D application with an object library and an editing and creation module. MicroSpot then plans to create vertical-market design applications. A beta is due by August.

Macromedia Inc. of San Francisco said it plans to integrate QuickDraw 3D technology into its 3-D product line, including Extreme 3-D, a forthcoming product. It may also support 3D MF in future versions of FreeHand.

Finally, HSC Software Corp. of Carpinteria, Calif., and Radius Inc. of Mountain View, Calif., have signed on but have not named products.

Some 3D MF models and 3D MF specifications are available at http://www.info.apple.com/qd3d.□



The appropriately named PickUpSpot XTension lets users pick up colors directly from a PICT or TIFF file for use as a spot color in an XPress file.

XChange adds XTensions

By Cate C. Corcoran

Spring brings a new crop of QuarkXTensions available from XChange. Samples from the new add-ons improve QuarkXPress' compatibility with competing page-layout programs, enhance the program's graphics capabilities and let users add emphasis to their text from within the application.

- **PickUpSpot,** $49, adds a color sampler tool to XPress, letting users pick up colors directly from a PICT or TIFF file for use as a spot color in XPress layouts. PickUpSpot gives users information on graphics files such as resolution, printable size and composition.
- **FingerType,** $99, gives users a mouse-controlled interface for many of XPress' typographic features. Users can kern letters by clicking on them and dragging them into place. A Size and Scale tool lets users drag a character or range of text to change its size. The XTension includes a Magic Wand tool that copies the attributes of one paragraph onto an-

See XTensions, Page 15

FOCUS ON MULTIMEDIA

Multimedia shines at techy Tinseltown shows

By Cate C. Corcoran

Los Angeles — The glitter of Tinseltown was rendered faint by the glow of CRTs last week when the multimedia community invaded downtown Los Angeles. Between the West Coast stop on the world tour of Apple's New Media Forum and the sixth annual Digital World conference and trade show, downtown L.A. enjoyed three days as the temporary world center for cogitation on multimedia, the Internet, media delivery and the law.

High tech came to the Sunset strip for an evening when Macromedia Inc. and Apple held glitzy parties at the Comedy Store and the House of Blues. Attendees of Macromedia's fete got a peek at a prototype of the recently announced Macromedia Director-savvy version of Netscape Navigator from Netscape Communications Corp. Party goers oohed and aahed when they saw Director movies run-

See Focus On, Page 14

Netscape-[Welcome to Macromedia!]
MACROMEDIA
See the 90's Resumé: Joe Mack's JobSeek
Join the MAGIC Program
Netscape & Macromedia: the Web will Never be the Same
Feel the Power! Graphic Design Studio
THE MULTIMEDIA AND DESIGN SOURCE
Congratulations, you are visitor number 898!

Multimedia on the Internet will enter a new dimension with a Macromedia Director-savvy version of Netscape Navigator.

Transverter takes on PDF, PostScript

By Cate C. Corcoran

TechPool Software this month plans to ship an upgrade to Transverter Pro, the company's utility that turns PostScript into a flexible interim file format for viewing and conversion.

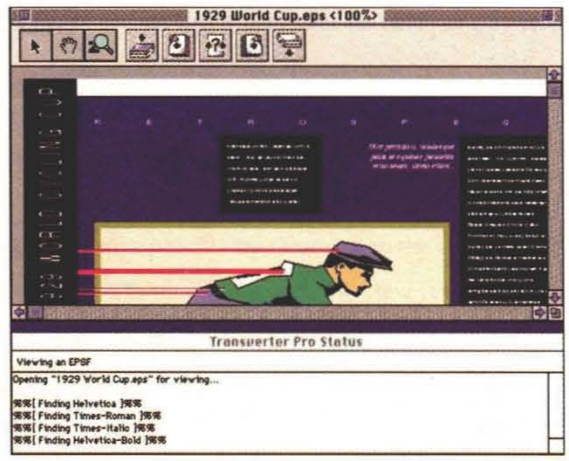
Version 3.0 will handle Adobe Systems Inc.'s Portable Document Format (PDF), include anti-aliasing and offer more flexible font handling.

Transverter Pro is a $395 application that provides a viewer and converter for PostScript files, creating discrete, editable text, paths and bit maps for editing in applications including Macromedia FreeHand, Deneba Software's Canvas, and Adobe Illustrator and Photoshop. The program also converts PostScript files into EPS files, which can be placed in documents. A RIP function rasterizes PostScript files into TIFF format.

The new version of Transverter Pro will extend the program's functionality to Adobe Acrobat's PDF files. Users will be able to view PDFs with Transverter Pro and convert them into EPS with previews, editable EPS, TIFF or PICT formats.

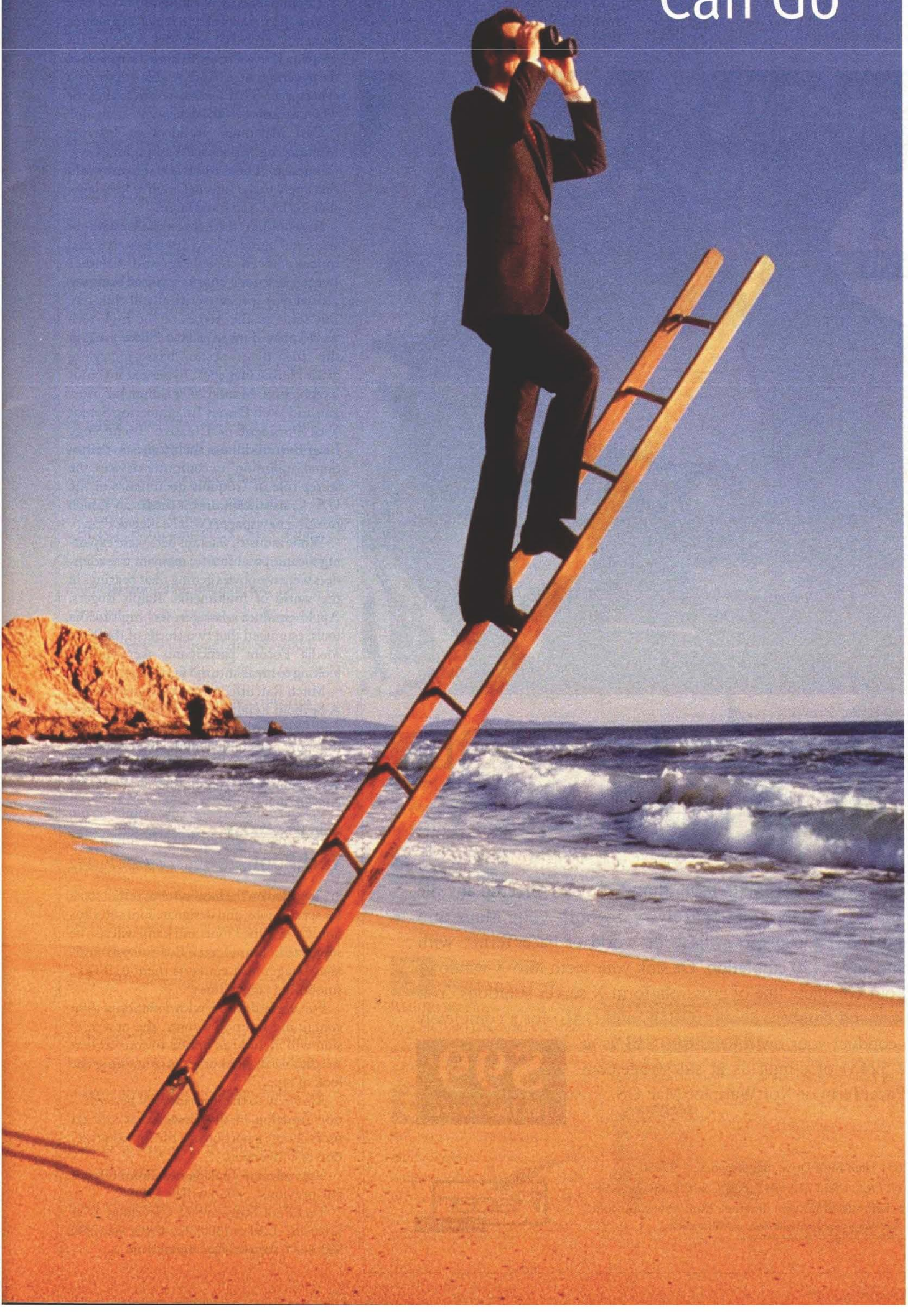
New font-handling capabilities will let users view in one window which Type 1 and TrueType fonts

See TechPool, Page 14



Transverter Pro 3.0 will let users view and convert PostScript and PDF files into TIFF, EPS and PICT formats for editing and printing.

Take Video Anywhere Your Imagination Can Go



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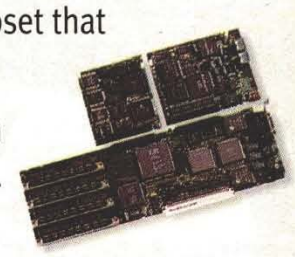

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FOCUS ON
From Page 12

ning within World-Wide Web pages. Applause erupted at the statement that all or some of the data from these 100-Kbyte files can be streamed to users' machines, never to take up hard drive space.

Macromedia CEO Bud Colligan said that integrating Director with on-line content is a major goal for the company. "We want to have Director movies playing on AOL and CompuServe, too. And we want to have a menu in Director that says 'Hook up to AOL, Netscape or CompuServe.'"

At the Apple New Media Forum, a presentation that included a surprise implicit statement of support for future high-density CD-ROMs was interrupted by that old friend of the demo, the bug. But the audience soon realized it was just a staged segue into a look at future capabilities of QuickTime VR. A panoramic VR movie of the inside of a Mac II combined a navigable scene with an embedded, animated sprite of a miniature Apple engineer pounding on the machine's silicon with a hammer.

In an industry where products often reign, much of the week's spotlight fell on controversial issues affecting new forms of media. An attorney attending Digital World's multimedia legal conference said: "With laws changing so fast and old laws being applied to new industries, our clients don't know what to do to keep themselves in the clear. I am trying to get up to speed."

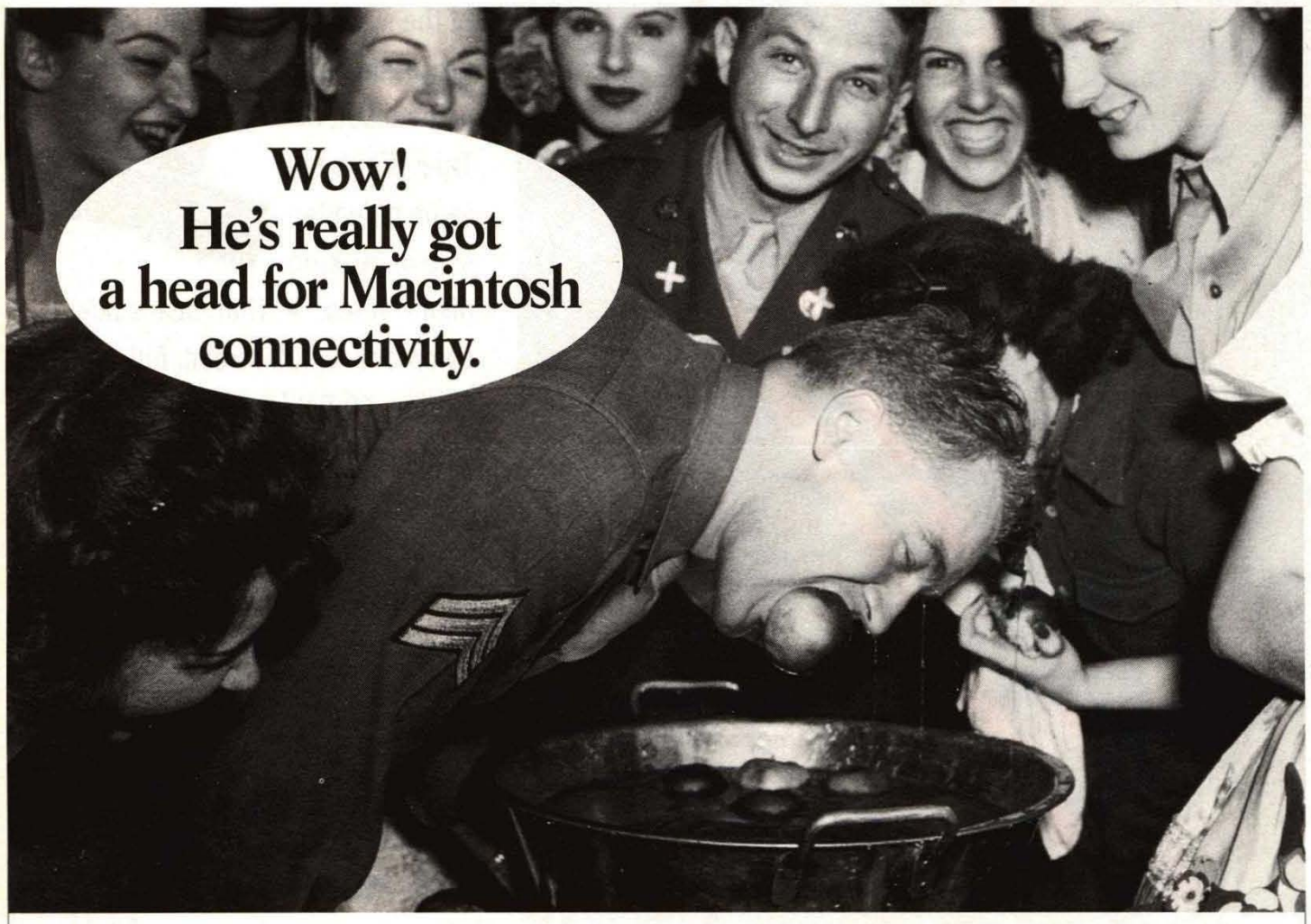
At a Digital World debate titled "Cyberspace: Should the Government Stay the Hell Out?" industry experts took sides on the issue of law and the Internet. John Perry Barlow, co-founder of the Electronic Frontier Foundation in Washington, D.C., said: "Cyberspace is a sovereign region as immune from any terrestrial authority as the oceans or space. Are we ready to have the morals of the government in Saudi Arabia imposed on cyberspace? That's what we are asking for when we impose our own."

Carl Malamud, president of Internet Multicasting Service in Washington, D.C., countered. "There are laws in the real world that apply to the Internet, such as libel laws, stalking laws and fraud laws."

It wouldn't have been L.A. without stars, so Digital World attendees crowded to see Steven Spielberg and Candice Bergen discuss a charity project bringing virtual play spaces to critically ill children. But some of the heroes of the high-tech world proved more offbeat. Show goers at the "Idea Bytes" session heard recording artist Herbie Hancock, hypertext inventor Ted Nelson, Mondo 2000 Editor Jaz Morgan and Walt Disney Imagineering Senior Vice President of Creative Technology Bran Ferren discuss such topics as "emotional resolution" in computer devices, the secret role of Iroquois documents in the U.S. Constitution and a future in which printing newspapers will be illegal.

While industry veterans here were exploring a conceptual future, many of the attendees were neophytes getting their bearings in the world of multimedia. Ralph Rogers, Apple product manager for multimedia tools, estimated that two-thirds of the New Media Forum participants were people looking to break into the field.

Mitch Ratcliffe, editor of Digital Media, A Seybold Report, based in San Francisco, said: "You see a lot of new people here with the same naiveté that all the big executives speaking here now came in with six years ago. More and more, this show is for entrepreneurs." □



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Pacer Products

TechPool

From Page 12

are installed on the local system, install fonts for specific jobs, and designate font substitution. DOS Type 1 fonts and kanji will also be supported. Transverter Pro 3.0 will anti-alias images as it converts them to TIFF, smoothing jagged lines.

For users dealing with PostScript files containing unknown fonts, the new version will include an option to convert text to editable Bezier curves, maintaining the look of type.

Also new to the upgrade will be a selection function in the viewer that will let users choose a portion of a file for rasterization or conversion.

Upgrades to Transverter Pro 3.0 from any previous version will be $99.

TechPool Software of Cleveland is at (216) 382-1234 or (800) 925-6998; fax (216) 382-4825; support@techpool.com. □

GRAPHIC DETAILS

- **Radius releases Splash servers**
- **Adaptive ships accelerator**

Radius Inc. of Sunnyvale, Calif., is now shipping the Splash Power Series of color-controller servers. Featuring a PowerPC chip, the servers act as RIPs for Xerox MajestiK Color Series copiers, offering built-in calibration, color correction and Open Prepress Interface capability; the five systems range in price from $21,500 to $33,500. Phone (408) 541-6100. ... **Adaptive Solutions Inc.** of Beaverton, Ore., has begun to ship its PowerShop accelerator board, which the company said speeds Adobe Photoshop by five to 30 times. Selling for $3,995, PowerShop puts 64 digital signal processors on a standard NuBus card and holds a dedicated processor for data management. Phone (800) 482-6277. ... **Ricoh Corp.** of West Caldwell, N.J., is shipping the NC8115, a color copier that includes a 200i Fiery controller from **Electronics for Imaging Inc.** The NC8115 produces a 400-dpi resolution and costs $69,995. Phone (201) 882-2000. ... **Summagraphics Corp.** of Seymour, Conn., has lowered prices by as much as 20 percent on its large-format color and monochrome inkjet plotters. There is also a new "roll-feed" option on the plotters, and customers who purchase plotters prior to July 31 will receive $550 worth of ink supplies or media. Phone (512) 835-0900. ... **Wasatch Computer Technology Inc.** of Salt Lake City now offers the Wasatch MultiPrinter option on its PostScript RIP, allowing users to drive three printers simultaneously. The add-on is $1,500 above the basic RIP price of $3,995. Phone (801) 575-8043. ... **Agfa,** a division of Bayer Corp. of Wilmington, Mass., has begun to bundle FotoFlavor, an Adobe Photoshop plug-in, with its flatbed scanners. FotoFlavor enables users to alter the shade of colors within an image. Phone (508) 658-5600. □

Xtensions

From Page 12

other paragraph or group of paragraphs.

- **Item Master** lets XPress users make style sheets for nontext elements. With this $99 XTension, users can create style sheets for text or graphics boxes that include box shape, runaround and other characteristics. When users change a style sheet, all elements with that style reflect the changes.
- **ShadowCaster,** $99, gives users a customizable, simple way to place drop shadows behind text and graphics from within XPress. ShadowCaster's images can be burned into background CMYK or RGB TIFF images. Users control level of blur, opacity, offset and shadow resolution.
- **BeyondPress** (see MacWEEK, March 6, Page 16) is a link between existing XPress documents and the World-Wide Web. The $595 XTension translates XPress style sheets into HTML (Hypertext Markup Language) and automatically places graphics from XPress documents into Web pages.
- **PM to QXD Conversion Tools** is a $69 set of scripts letting users convert Adobe PageMaker documents or elements of them into XPress. Options include saving documents without text boxes or just colors and layouts with no graphics or text elements.

XChange of Fort Collins, Colo., can be reached at (303) 229-0620 or (800) 788-7557; fax (303) 229-9773. □

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2 YOU CAN RECEIVE FAXES WITH 4-SIGHT. What's more, they come directly to you with our exclusive DID option. A fax meant for you goes to you.

3 4-SIGHT WORKS WITH YOUR EXISTING E-MAIL SYSTEM! You can send faxes as easily as you send E-mail. 4-Sight integrates seamlessly into QuickMail™, MS-Mail® and cc:Mail™.

4 EXPANSION! GROWTH! VOLUME! Start with as few as 5 users and grow as needed. 4-Sight lets you add users and lines easily. You can have up to 12 fax lines and thousands of users!

5 GRAYSCALE FAXING. NEED TO FAX PHOTOS? ILLUSTRATIONS? You gotta have 4-Sight. Up to 256 levels of gray ensure your visual elements are visual elements when they arrive at the other end!

6 ADVANCED ACCOUNTING AND ARCHIVING.
If you have to keep track of faxes or long-distance charges, you need to receive detailed information on what faxes went where. That's just what you get with 4-Sight. Archiving of faxes for later viewing or resending, and detailed accounting that exports into a spreadsheet for easy billing or accounting.

Don't forget. In addition to all these reasons, 4-Sight gives you a "Draggin' Drop" interface. Sending a fax is as easy as draggin' your document to the "Draggin" icon!

7 LOOK AND FEEL. There's a great new interface in 4-Sight Fax 3.0. New, colorful icons and screens for easy faxing.

8 QUICKFAX™. The name says it all. Quick and easy access to your network fax.

9 FAXSWITCHER™. Another feature that makes 4-Sight so easy and quick to use. You can easily create a hotkey (command-key) that jumps you right to faxing.

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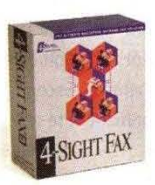

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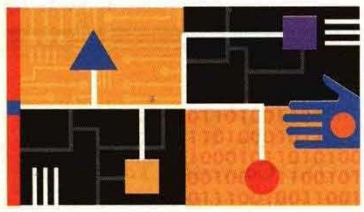

GATEWAYS

CLIMBING THE WEB

Many Mac sites are migrating onto the Web. Find out how they're doing it in this week's Solutions. See Page 37.

Apple, WebStar servers shipping

By James Staten

It's a new world for Mac Internet servers: StarNine Technologies Inc. shipped WebStar this week, and last week Apple released its Internet Server Solution for the World-Wide Web. And this month Apple reportedly purchased the rights to the MailShare mail server.

WebStar 1.1, the faster commercial version of Chuck Shotton's MacHTTP server, costs $349 and is $99 for registered MacHTTP users. After July 31, the price will increase to $795, and $495 for current users (see MacWEEK, March 20, Page 4). The software is available electronically from StarNine's Web page at http://www.starnine.com. The floppy disk-based version and a CD-ROM bundle will ship at the end of this month.

The CD-ROM will carry a $50 price tag and include Peter Lewis' FTPd, Adobe Systems Inc.'s Acrobat Reader, AppleScript, Bare Bones Software Inc.'s BBEdit, Rick Giles' HTML Editor 1.0, UserLand Frontier and a 30-day trial version of StarNine's ListStar mailing list server.

StarNine also announced that it will ship two WebStar add-ons this fall. Security Toolkit will provide Web data encryption and authentication using the Secure Sockets Layer technology in Netscape Communications Corp.'s Web browser. Commerce Toolkit will allow transactions through First Virtual Holdings Inc.'s digital payment system. Prices for the add-ons have not been set.

Apple's Workgroup Server-based Internet Server Solution starts at $2,909. The Internet server line comprises a 6150/66, 8150/110 or 9150/120 CPU plus a CD-ROM of software centered around WebStar 1.0 (see MacWEEK, April 3,

See Servers, Page 18

New Pipeline puts phone, fax on ISDN

By Henry Norr

Ascend Communications Inc., developer of the popular Pipeline series of ISDN routers, this week will roll out its least expensive and most versatile model yet.

The Pipeline 25, priced at $895, is targeted at telecommuters and small-office workers. In addition to transmitting digital data at rates of up to 128 Kbps, the new model carries voice calls, faxes and analog modem traffic over the same line. The TCP/IP routing needed for Internet access is an added-cost option, however.

Like previous members of the Pipeline series, the Pipeline 25 has a Basic Rate Interface and built-in network terminator (NT-1) for ISDN (Integrated Services Digital Network), plus 10BASE T and AUI (attachment unit interface) ports that connect to a stand-alone computer or a LAN via Ethernet. What's new in this model is two

See Pipeline, Page 18

Security Guard 3.0 guesses passwords

By Nathalie Welch

MR Mac Software recently upgraded the AppleShare access-checking features of its security utility and also added the ability to tailor security audits to individual networks.

Configure: Password Crack...
Network Security Guard
MR Mac Software
Password Crack Options
Enter the list of username & password combinations you would like to check below - one combination per line. Separate the username and password with a comma.
anonymous,guest
username,password
superuser,superuser
ownername,password
default,changeit

MR Mac Software's Network Security Guard 3.0 now enables administrators to create lists of user names and passwords to check during a security audit of networked Macs.

Version 3.0 of Network Security Guard is available now for $259 for unlimited AppleTalk zones. The utility is designed to limit unauthorized access to servers based on the AppleTalk Filing Protocol, such as Macs with file sharing turned on.

Whereas the previous version would scan the network and attempt to log onto Macs using Guest access, the new version guesses at passwords based on the device's network name. For example, if a Macintosh is registered on the network as Pat Batt's Mac, the utility will attempt to crack the password by employing various combinations of that name.

Network administrators can also can create a dictionary of user names and common passwords to employ during a security audit.

"People often point out that tools like Network Security Guard and SATAN [Security Administrator Tool for Analyzing Networks, a Unix security-monitoring program] make it easier for malicious users to gain access to a computing environment," said Michael Robertson, president of MR Mac Software. "These software programs do not provide any additional access to those users but simply provide tools for administrators to keep an eye on their environments."

Current users can upgrade for $50; upgrades ordered on-line via upgrade@mrmac.com are $30.

MR Mac Software of Del Mar, Calif., can be reached at (619) 453-2845; fax (619) 481-1263; sales@mrmac.com. □

FOCUS ON

DEVELOPMENT TOOLS

Wave of OpenDoc tools building

By Robert Hess

While Apple sang the praises of OpenDoc at its recent developers conference, it handed out the second developers release of the Mac OpenDoc programming kit. Now a chorus of third-party vendors are chiming in, and Apple is preparing a set of releases for June.

Tools for OpenDoc on 680x0 Macs are a step behind Power Mac development; Apple is already offering a pre-release version of PPCC, a native C and C++ compiler that is capable of creating OpenDoc code. The company is working on next-generation

See Focus On, Page 18

OpenDoc's promising toolbox

COMPANY	PRODUCT	TYPE	RELEASE DUE
Apple	PPCC	680x0 compiler	Pre-release now
	MrC and MrCPP	PowerPC compilers	This month
	Debugger 68K	680x0 debugger	Second half 1995
	Debugger PPC	PowerPC debugger	This month
	ILink 68K	680x0 linker	Pre-release now
	PPCLink	PowerPC linker	Pre-release now
Heizer	ODTools	Part inspector	Early 1996
Metrowerks	CodeWarrior	Dual environment	Pre-release now
	PowerPlant	Framework	Pre-release now
Novell	AppWare	Dual environment	Late 1995
Pictorius	Prograph CPX	Dual environment	Sometime in 1996
Symantec	C and C++ 7.0	680x0 environment	Second half 1995
	C++ 8.0	PowerPC environment	Pre-release now
Quasar	AO/S	Pseudo-OS	Pre-release now
	VisualAgents	Dual environment	Pre-release now
	SmalltalkAgents	Dual environment	Pre-release now

Data, fax, voice in one card

By Robert Hess

Simple Technology Inc. has combined a modem, fax machine, telephone and cellular-phone attachment into a device the size of a credit card.

The 28.8 Communicator is a Type II PCMCIA card that includes a 28.8-Kbps data modem with a fax portion that connects at up to 14.4 Kbps. The card, which shipped in May, costs $469.

The 28.8 Communicator can perform functions similar to voice mail by answering incoming calls and accepting messages. It supports multiple voice mailboxes and can send a page automatically to notify a user when a message has been received.

The card supports MNP 10-EC error correction, the standard for digital cellular data communications, and V.42, V.42bis and MNP levels 2 through 5 for standard dial-up.

All the necessary software for Mac, DOS or Windows is included. A 14.4 Communicator, which has the same features at a lower speed, sells for $275.

Simple Technology Inc. of Santa Ana, Calif., can be reached at (714) 476-1180 or (800) 367-7330; fax (714) 476-1209; simpletec@aol.com □

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FOCUS ON

From Page 16

compilers, called MrC and MrCPP, that will use the PPCC back-end and Symantec Corp.'s C and C++ front end; Apple plans to ship final PowerPC versions of MrC and MrCPP by the end of this month.

Apple is also creating 680x0 and PowerPC debuggers for OpenDoc parts. The company will release the Power Mac version by the end of this month and the 680x0 version sometime in the second half of 1995. Cupertino, Calif.-based Symantec has already licensed these debuggers for its C++ 8.0.

Apple is also working on new versions of its ILink and PPCLink linkers that more fully support OpenDoc.

To help migrate existing software to OpenDoc, Apple has introduced Container Application Library, a collection of routines that help make programs into OpenDoc containers. The final version is due by the end of 1995.

For those developers starting from scratch, Apple recommends using an application framework. The three major options are Apple's MacApp; PowerPlant from Metrowerks Inc. of St. Laurent, Quebec; and Symantec's TCL, all of which support OpenDoc to some degree now and will do so more extensively before OpenDoc ships.

Apple is also working on OpenDoc Development Framework, which will make it easier for Mac and Windows developers to write parts and containers to be compiled for both platforms. Pre-release versions are available now, with the final version due alongside OpenDoc. Further, the cross-platform Visual Basic-like development environment, code-named Denali, from Apple and IBM Corp. of Armonk, N.Y., will also be able to create OpenDoc components when it ships next year.

Novell Inc. of Provo, Utah, announced in April that its AppWare environment will support OpenDoc on both Mac and Windows platforms. A version due in late 1995 will compile ALMs (AppWare Loadable Modules) into Mac OpenDoc parts; by mid-1996 it will work for Windows. Later the environment will act as an OpenDoc container for other parts, and AppWare will itself become a set of OpenDoc components, Novell said.

Pictorius Inc. of Halifax, Nova Scotia, said it plans to begin development on an OpenDoc-savvy Prograph CPX by year-end.

In addition, Heizer Software of Pleasant Hill, Calif., announced ODTools, its "ResEdit for OpenDoc." The tool will inspect, test and manipulate compiled OpenDoc parts. It will ship at the same time as OpenDoc. Quasar Knowledge Systems Inc. of Bethesda, Md., is also incorporating OpenDoc into its line of development products, which includes Agents Object System, SmalltalkAgents and VisualAgents. □

Pipeline

From Page 16

analog RJ-11 jacks for standard telephones, answering machines, fax machines or modems.

When no digital data is being transmitted, the ISDN line's two channels are available for analog telephony; one of the so-called B channels could be used for incoming or outgoing voice calls, for example, while the other carried faxes. When a B channel is not in use for analog traffic, the Pipeline 25 can use one to send or receive digital data at 56 or 64 Kbps, or it can bond both channels together into one 112- or 128-Kbps pipe.

If, while both ISDN channels are in use, the telephone network signals an incoming analog call or the user picks up the handset, tries to send a fax or attempts to open a modem connection, the Pipeline 25 automatically scales back the ISDN connection to 56 or 64 Kbps to make room for the analog call.

While many ISDN terminal adapters and external NT-1s have one or more analog RJ-11 connectors, previous Ascend products and most competing ISDN routers did not; that meant that users had to retain analog lines for nondigital data when adding ISDN lines.

Pipeline 25 users who want high-speed access to the Internet will have to pay extra. In its standard $895 configuration, the new device serves only as a multiprotocol bridge; TCP/IP routing costs an additional $300, as does IPX routing and 4-to-1 hardware-based data compression.

Ascend's single-user Pipeline 50hx and multi-user Pipeline 50 cost $995 and $1,495, respectively; though they lack analog ports, both support TCP/IP and IPX routing and hardware compression.

Ascend Communications Inc. of Alameda, Calif., can be reached at (510) 769-6001; fax (510) 814-2300; einfo@ascend.com. □

Servers

From Page 16

Page 1). MacDNS, the domain name server software Apple is developing, is expected to ship later this summer; purchasers of the Internet server will receive MacDNS free.

Sources said Apple has added to its server software collection by purchasing MailShare, a Post Office Protocol and SMTP (Simple Mail Transfer Protocol) server written by Glenn Anderson of Dunedin, New Zealand. The company reportedly has not decided whether it will bundle MailShare with the Internet server or sell it independently.

Apple was unavailable for comment on MailShare. Anderson declined to comment.

StarNine Technologies Inc. of Berkeley, Calif., can be reached at (510) 649-4949; fax (510) 548-0393; info@starnine.com. □

Robert Hess contributed to this report.

Mac Users: Go forth, and conquer.

I.S. Managers: Go forth, and relax.

At last! Affordable TCP/IP applications for file access, networking, and printing for the Mac.

You know the data is out there. On a mainframe back at corporate. Or a UNIX server. Or maybe on that guy's PC down the hall.

Up until now, getting that information using a Macintosh has been, well, dicey—at best.

At Wollongong, we've been liberating legacy data for DOS and Windows users for over a decade. We've also done a lot of work on the other side of the house and developed some great solutions for Mac users, too.

PathWay gives you instant access to all the resources of your TCP/IP network. Using FTP, you can get to and share data that resides on just about any system—anywhere around the world. And since PathWay has an intuitive graphical user interface, you can transfer files from remote hosts and retrieve files from servers—with all the point-and-click, drag-and-drop simplicity you love about your Mac.

PathWay also offers a host of other capabilities. For I.S. managers, it's easy to install and configure—and our script compiler even lets you automate keystrokes and log-on sequences. For Mac users, full terminal emulation capabilities let you run legacy apps at your desk. You can remap your keyboard to match your host system. And Print Redirector makes it a breeze to print to any printer on the TCP/IP network. (Just drag your document onto the virtual printer icon.)

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Domestic Resellers
ClubMac
1-800-258-2622

Creative Computers of GA
1-404-879-8667

Creative Computers/MacMall
1-800-222-2808

DTP Direct
1-800-643-0635

Ed Tech
in MN 1-800-487-4165
in ND, SD 1-800-332-2135

Education Access
1-800-726-3895

Education Technology Associates
1-800-598-8989

Fry's Electronics
All Locations

Government Micro Resources
1-800-232-4671

Graham MicroAge
in KY 1-800-999-9813
in OH 1-800-582-5502
in IN 1-800-722-1599
in WI 1-800-490-0200

GTSI
1-800-999-4874

Mac Complex
1-612-334-5811

MacConnection
1-800-800-3333

Mac-On-Site
1-301-762-4442

Macintosh Business Solutions
1-301-330-4074

MacWarehouse
1-800-255-6227

MacZone
1-800-248-2088

Mac's Place @ Egghead
1-800-905-0009

PrePRESS Direct
1-800-443-6600

Random Access
1-800-422-2383

Renie & Raymond
1-800-578-7488

Seraph
1-800-721-7243

Syex Express
1-800-289-7939

Domestic Distributors
Ingram Micro
US - 1-800-456-8000
Canada - 1-800-668-3450

MacUSA
1-800-762-3531

Merisel
1-800-637-4735

International Distributors
Australia
1 World Systems
02-700-9266

Austria
Logic
01-257-2142

Cyprus
Empiria
02-318-486

Denmark
Exatec
044-92-7000

France
MacWay
16-88-18-21-65
P.Ingenierie
1-47-40-40-00

Germany
Magirus
0711-728-160

Hong Kong
World Asia Tech
2836-3577

Israel
SYSCONET
9-587-945

Italy
Aleph
050-878-686
Modo SRL
0522-512-828

Japan
dit CO
03-5634-7651
Focal Point
03-5484-0143
Swire
03-3230-9172

Netherlands
Signal
010-208-1600

New Zealand
MagnumMac
03-338-7006

Norway
Microtronica AS
022-376-020

Sweden
NatCompaniet
08-169-550

Switzerland
Systrade
061-751-5111

United Kingdom
Gomark
071-731-7930
Simmtech
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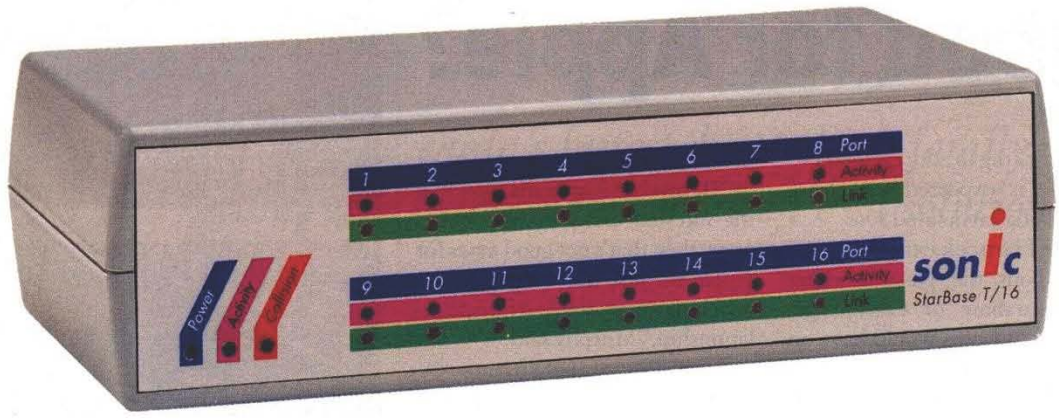
HUBBA, HUBBA.



StarBase T/16 Rear View

Introducing the new StarBase T/16.

At about $24/port, this is a hub you'll love to take home.

Sonic's line of inexpensive workgroup hubs has become even more attractive with the release of the new sixteen port hub, the StarBase T/16.

*The **StarBase T/16** has sixteen twisted pair ports, an AUI port and a BNC Thin Coax port. The StarBase T/16's diagnostic LEDs keep you well informed on the condition of your network: Collision and Activity LEDs let you know what your Ethernet packets are doing, Link Status LEDs show whether an Ethernet node is functional and Port Activity LEDs show which nodes are communicating on the network.*

When it comes time to expand the network, connecting multiple StarBase T/16 hubs to accommodate more Ethernet devices is easily accomplished either through the AUI or BNC ports or by cascading RJ-45 ports.

*The **StarBase T/9** has eight twisted pair ports and one BNC Thin Coax port. Like its big brother, the StarBase T/9 has a full array of diagnostic and status LEDs to keep you informed.*

*The **HubLite** has five twisted pair ports. Its compact size (measuring a pocket-sized 5"x3"x1") and affordability makes it ideal for adding additional nodes to an existing twisted pair Ethernet network. The HubLite can also be used as an Ethernet repeater to extend twisted pair cabling distance. A unique 'Crossover' switch allows the HubLite to be cascaded to another hub without the use of special reverse cabling. The HubLite also has five Link LEDs which make troubleshooting easy.*

And, of course, all Sonic hubs come with a Lifetime Warranty and unlimited technical support.

HEAD TO HEAD: 10Base-T Unmanaged Workgroup Hubs

	Sonic	Asanté	Dayna	Farallon
Small (4 to 5 ports)	**$149 $30/port**	**$179 $36/port**	**$195 $39/port**	**$219 $55/port**
Medium (8 to 12 ports)	**$229 $25/port**	**$415 $30/port**	**$249 $28/port**	**$299 $33/port**
Large (16 to 24 ports)	**$429 $24/port**	**$638 $26/port**	**$1,075 $45/port**	**$699 $41/port**

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BUSINESS

DRIVE HARD

The worldwide RAID market will exceed $7.7 billion in 1995 and $13.1 billion by 1998.

— Disk/Trend Inc.

NEWS ANALYSIS

IBM deal good for Apple?

Lotus takeover bid could mend fences

By Greg Garry

What does IBM Corp.'s move to become king of the land of the lotus eaters portend for Apple?

The signals are decidedly mixed, with some viewing Big Blue's bid to buy out Lotus Development Corp. as potential good news for Apple, while others see the proposed $3.3 billion acquisition as trouble.

"If this thing goes through, it would be better for Apple than having Lotus as an independent," said Pieter Hartsook, editor of The Hartsook Letter, an Alameda, Calif.-based industry newsletter.

Noting that the Apple-Lotus relationship has not been cordial the past few years, Hartsook said an IBM buyout could improve that situation. "I think IBM will come around fairly soon to realizing that for the PowerPC to be successful, there will have to be a unified front among all of the partners," he said.

Following last week's takeover attempt, IBM CEO Louis Gerstner Jr. made it clear that the real attraction was not Lotus 1-2-3 spreadsheet software but Notes, Lotus' groupware offering.

PowerTalk, Apple's foray into the groupware wars, has been something less than spectacular, according to Hartsook. "Part of the problem has been that, while the basic idea was good, the execution was poor," he said. "It was considered complicated to set up and use. Apple understands those problems and is working to address them."

Apple is expected to release PowerTalk 2.0 in late 1996.

While Hartsook expressed optimism about the possible effect IBM's purchase of Cambridge, Mass.-based Lotus would have on Apple, he noted potential problems. "It's not clear what would happen to Lotus Notes under the stewardship of IBM," he said.

Others also see possible trouble ahead. "I don't think this is a strategic move at all," said Michael Murphy, editor and publisher of the California Technology Stock Letter in Half Moon Bay, Calif. "There are just a bunch of fiefdoms inside IBM fighting it out as individual entrepreneurs.

"If this deal is an indication that the internal discipline at IBM is gone, then that's not good news for Apple because they're depending on a long-term, stable strategic relationship," Murphy said.

Regardless of the outcome, industry observers agreed that if the deal goes through, IBM of Armonk, N.Y., will have a strong presence in the groupware arena.

"The Notes product is beyond the stage of a pure product," said Chris Galvin, an analyst with Hambrecht & Quist Inc. in San Francisco. "It's a market and an installed base, and it carries with it a lot of momentum." □

Intuit posts third-quarter loss

By Jon Swartz

Call it the vagaries of the acquisition game: A successful buyout took a bite out of Intuit Inc.'s third-quarter earnings, yet an aborted merger with Microsoft Corp. will net the personal-finance software company millions in the fourth quarter.

Stung by costs related to its purchase of Parsons Technology Inc. in 1994, Intuit of Menlo Park, Calif., reported a loss of $3.75 million for the quarter ended April 30. In the same quarter last year, the company lost $6.27 million, which included charges associated with the acquisition of ChipSoft Inc.

Despite the loss, Intuit logged an 82 percent jump in sales, to $98.9 million from $54.4 million a year ago. The company said it will have an estimated $25 million profit in the next quarter because of the collapse of a proposed $2.1 billion takeover by Microsoft.

Intuit received a $46 million fee from Microsoft of Redmond, Wash., for terminating the deal. □

Execs named in civil sex suit

A former employee has filed a lawsuit accusing two executives at Global Village Communication Inc. of sexual assault and battery and sexual harassment.

In the civil suit, filed in Santa Clara County (Calif.) Superior Court, Roberta Wallace alleged that Bruce Finch, former Global Village director of channel sales, raped her in July 1994. Wallace also charged company CEO Neil Selvin with sexual harassment and attempting to cover up the situation.

Wallace, a former administrative assistant, is seeking unspecified compensatory and punitive damages, her attorney said.

A Global Village spokeswoman said the Sunnyvale, Calif., company, which was also named in the suit, does not comment on pending lawsuits. □

MacWEEK index
1994 EXPANDABLE ORGANIZERS

RANK	COMPANY	UNIT SHIPMENTS	MARKET SHARE(%)
1	**Sharp Corp.**	280,000	50.0
2	**Psion plc**	220,000	39.3
3	**Casio Computer Co. Ltd.**	60,000	10.7
	Total	**560,000**	**100**

Source: Dataquest Inc.

BOB RIHA

Newton Source — with stores in New York, San Francisco and Los Angeles (left) — sells nothing but Newton-related products.

Newton succeeds in small retail chain

Large selection, sharp staff are secrets to success

By James Staten

While Newton-based PDAs may not be garnering headlines, they are selling, thanks in no small part to a tiny specialty chain started in New York.

Newton Source Inc., with locations in New York, San Francisco, Los Angeles and, soon, Chicago, sells nothing but Newton-related products. While such a business plan might seem shaky, sales from the beginning have been brisk.

Several retailers, including consumer-electronics chain The Good Guys of Brisbane, Calif., completely dropped Newton devices from their product selection last year.

Clarence Wesley, Newton Source general manager, said the company's secret to success has been to carry a large selection of software, including hard-to-find titles and vertical-market products, and to serve more as a knowledge provider than as a seller.

"We don't 'sell' at all," Wesley said. "We merely let people come in and ask questions. This way they can determine if the Newton is right for them."

Wesley said that training employees in how to demonstrate the Newton and briefing them on the breadth of solutions offered for the platform is important.

"There were a number of individuals who tried to sell the Newton early on that didn't have very much knowledge in terms of showing customers how the Newton works," he said. "When an individual asked questions, they didn't get answers."

It also helps that each Newton Source is located in a heavily populated area and that a substantial number of sales are made through mail order.

"I like the fact that they have a variety of software and accessories that I can see and touch," said Sharon Abar of Orange, Calif. "And you're talking to [store employees] who have actually used them."

Mail-order customer Adam J. Bezark of Glendale, Calif., said, "The best thing about The Newton Source is they don't laugh their butts off when you tell them you're a Newton owner."

Yet the success of just one retailer does not indicate the mainstream acceptance of the Newton. The PDA's future remains to be seen.

"We're a small company, so the market doesn't have to be too large for us to make money," Wesley said. "That's a different story for Apple."

In fact, Apple last year fared poorly in the handheld computer market. Newton sales dipped 23 percent in 1994, to 60,000 from 78,000 in 1993. □

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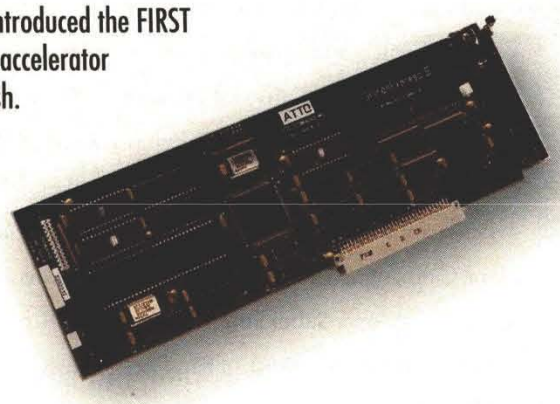
ATTO IS THE ANSWER!

The company that brought you the world's fastest, best selling family of SCSI accelerators for NuBus, now brings you the fastest PCI solution.

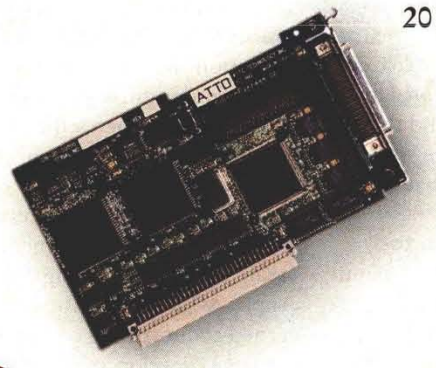
1989

ATTO Technology introduced the FIRST SCSI-2 Bus Master accelerator board for Macintosh.

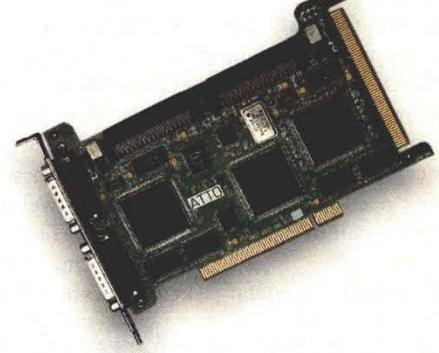


SiliconExpress II
10 MBytes/sec.

SiliconExpress IV
20 MBytes/sec.



ExpressPCI
80 MBytes/sec.



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ATTO launched the FASTEST, BEST SELLING, SCSI-2 FAST/WIDE NuBus accelerator for Macintosh.

1995

ATTO now presents the FASTEST SCSI-3 solution for your PCI based Power Macintosh.

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MW EDITORS' CHOICE

Macworld Picks the SiliconExpress IV!

"For Any Drive, ATTO's SCSI-2 Card Is The Fastest."

Macworld
Editors' Choice Award
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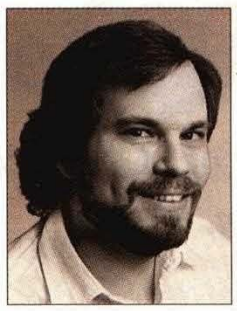
DEALER'S CORNER SCOTT HARRIS

Let Apple dealers offer clones as an alternative to Intel boxes



One customer was about to buy a Power Macintosh 6100 with DOS card until he learned that the video resolution of that Mac is limited to 832 by 624 pixels. He wanted at least 1,024 by 768 for CAD applications but needed Intel-standard PC compatibility for some custom programs (requiring more than Insignia Solutions Inc.'s SoftWindows' speed).

He can't get Mac equivalents for his specialized PC programs, but he *can* get CAD programs on the PC. So that's what he'll buy. This is one kind of dilemma that I'm hoping Mac clones can solve.

Room in the middle

We need to have more flexibility in configurations so we can put together the combinations that people need. Apple has always tied speed and expandability, for example; the low end has neither, the high end, both. Availability of the alternate combinations would allow users who need only one of those two capabilities to purchase what they need more cost-effectively, as they can in the PC environment.

Mac clones announced so far have addressed the extremes. DayStar Digital Inc. and Radius Inc. target high-end specialized needs, at a high price. This niche approach, while unlikely to make these companies household names, could earn them a respectable position. Power Computing Corp., at the other end of the spectrum, takes the Dell/Gateway 2000 approach, selling direct to the user and emphasizing those savings.

In the middle, there remains the opportunity for some company to offer products at a price not too far from Apple's but with differentiating features. This is the role Compaq Computer Corp. created for itself in the IBM world and the one that can best leverage off the strengths of the dealer channel.

Dealers need choices, too

Unlike most Intel-standard manufacturers, Compaq originally marketed primarily through the same dealers who were selling IBM-brand products. Today, Apple dealers are the best potential channel for a well-designed Mac compatible. They already know the platform, and, having marketed Macs in a PC world, they understand how to sell products that are alternatives to the mainstream.

Whether it is because of product shortages, Apple's problematic policies toward its resellers or just dealers' desire to keep their eggs in multiple baskets, many Apple dealers find themselves devoting more resources to Windows than before. Given the choice, many would prefer additional sales options on the Mac side. And given those alternatives, Apple should prefer that those dealers offer a Mac clone as an Apple alternative rather than an Intel box.

To succeed in this channel, the Mac clone should be well differentiated from Apple's own products and from other clones. Attention to aesthetic and ergonomic design is more important here than when selling direct or concentrating on industry-specific solutions. The clone maker should also try to license or develop unique enhancements; be creative about bundling (unlike Apple, which needs to be concerned about stifling competition among its developers); and look to fill holes in Apple's offerings. □

Scott Harris, owner of The Media Room Inc. in Mt. Kisco, N.Y., can be reached on CompuServe at 73717,1162.

MacWEEK index
MAY TOP SELLERS

The top Macintosh products by dollar volume and category at ComputerWare, a chain of Mac-only resellers in California. The list includes Apple-label products.

APR.	MAY	CPUs
2	1	Performa 6115CD 8/350
1	2	Power Mac 7100/80 8/700/CD
*	3	Power Mac 8100/100 16/1000/CD
3	4	Performa 630CD 8/250
*	5	PowerBook 540c 12/500/modem

APR.	MAY	Graphics and multimedia
1	1	Adobe Photoshop 3.0
2	2	Adobe Illustrator 5.5
4	3	Macromedia FreeHand 5.0
7	4	Diehl Graphsoft MiniCad 5.0
10	5	Strata StudioPro 1.5
6	6	HSC Kai's Power Tools 1.0
8	7	Macromedia Director 4.0
5	8	Deneba Canvas 3.5
*	9	Altsys Fontographer 4.1
*	10	Specular Infini-D 2.6

APR.	MAY	General appications
2	1	Microsoft Office 4.2
1	2	QuarkXPress 3.3
4	3	Apple System 7.5
5	4	Claris FileMaker Pro 2.1
3	5	Adobe PageMaker 5.0
8	6	Insignia SoftWindows 1.0
6	7	Microsoft Word 6.0
9	8	ClarisWorks 3.0
7	9	Microsoft Excel 5.0
*	10	Intuit QuickBooks 3.0

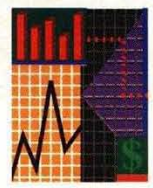
APR.	MAY	Connectivity
2	1	Global Village PowerPort/Mercury
1	2	Global Village TelePort/Platinum
3	3	Global Village TelePort/Gold
4	4	SupraFAXModem 288
5	5	Asanté FriendlyNet 10BASE T
8	6	Global Village PowerPort/Gold
9	7	SupraExpress 144
*	8	Asanté MacCon+NB 10BASE T
*	9	Global Village PowerPort/Platinum
6	10	Global Village OneWorld

APR.	MAY	Hardware
1	1	Apple Multiple Scan 17" monitor
4	2	Apple Multiple Scan 20" monitor
*	3	Radius IntelliColor 20" monitor
3	4	Apple Multiple Scan 15" monitor
*	5	Radius Precision Color 17" monitor
*	6	Hewlett-Packard ScanJet IIIc
5	7	Apple LaserWriter Select 360
10	8	Sony Multiscan 17sf monitor
*	9	Sony Multiscan 15sf monitor
2	10	Apple LaserWriter 16/600 PS

APR.	MAY	Utilities
1	1	Symantec SUM for Mac 3.1
2	2	Casady & Greene Conflict Catcher 3.0
3	3	Connectix RAM Doubler 1.5
6	4	FWB Hard Disk Toolkit 1.7
4	5	Now Utilities 5.0
5	6	Symantec SAM for Mac 4.0
*	7	CE Software QuicKeys 3.0
8	8	Aladdin StuffIt Deluxe 3.5
7	9	Berkeley Systems After Dark 3.0
10	10	Norton DiskDoubler Pro 1.1

**Didn't make top 10 last month. Source: ComputerWare.*

OFF THE WIRE

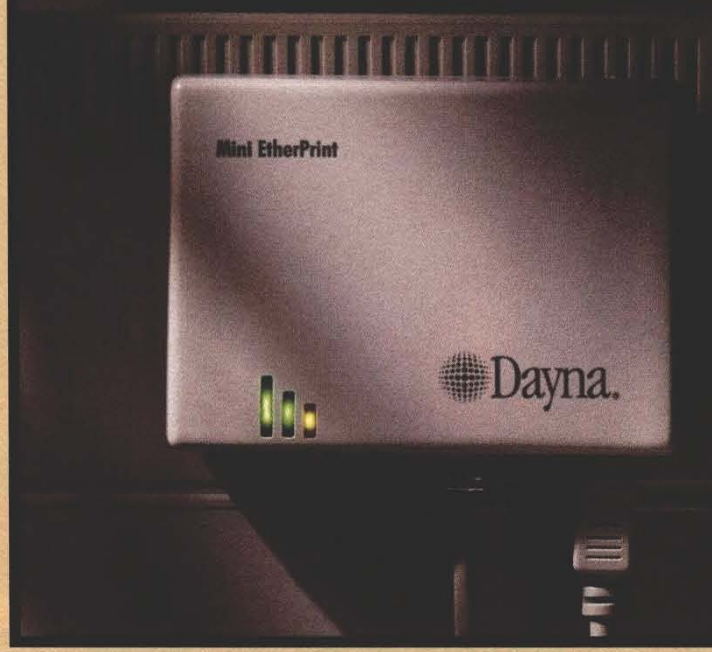


- **Apple gets A in K-12 sales deal**
- **AOL leads latest acquisition charge**
- **Financial results trickle in**

Apple USA has landed one of its largest K-12 contracts. The division in May said it sold 3,000 Power Macintosh 5200/75 LCs to **Milwaukee Public Schools**, which now has an installed base of more than 10,000 Apple CPUs. ... Last month, a handful of vendors went trolling for companies. Vienna, Va.-based **America Online Inc.** bought **Global Network Navigator,** a commercial World-Wide Web site, from **O'Reilly & Associates Inc.** of Sebastopol, Calif., for about $11 million. AOL also snared WebCrawler, an Internet search tool, for an undisclosed sum. ... **Performance Systems International Inc.** of Herndon, Va., said it will buy two software companies: **InterCon Systems Corp.,** also of Herndon, and **Software Ventures Corp.** of Berkeley, Calif. ... **Fore Systems Inc.** of Pittsburgh purchased **Applied Network Technology Inc.,** a Westford, Mass.-based maker of low-cost Ethernet switches, for $35 million in stock. ... **McAfee Associates Inc.** of Santa Clara, Calif., signed an agreement to buy Dallas-based network management developer **Saber Software Corp.** for $40.6 million in stock. ... **Frame Technology Corp.** of San Jose, Calif., has agreed to acquire **Mastersoft Inc.,** the Scottsdale, Ariz.-based publisher of Word for Word document-conversion software, in a stock deal worth $27.3 million. ... A trio of vendors reported financial results. **Novell Inc.** of Orem, Utah, said its second-quarter sales rose 17 percent, to $529.5 million from $454.4 million in the same period a year ago. The company's profits were $95.9 million, up 45 percent from $66.1 million last year. ... **Blyth Holdings Inc.** posted fiscal 1994 sales of $16.7 million, an increase of 13 percent from $14.8 million a year ago. For the 12-month period ended March 31, the Foster City, Calif.-based company lost $12.4 million, compared with a loss of $544,000 in 1993. ... **Metrowerks Inc.** of St. Laurent, Quebec, said third-quarter revenues jumped 80 percent, to $1.8 million from $1 million in the year-ago quarter; earnings, meanwhile, were $126,000, compared with $33,000 last year. ... New Internet services went on-line in May. **Onsale,** a Mountain View, Calif.-based retail outlet offering Macs, peripherals, sports memorabilia, original movie posters and other goods, is the brainchild of GO Corp. founder Jerry Kaplan. It can be reached at http://www.onsale.com. ... Another service, BroadCast from **SNA Inc.** of Boca Raton, Fla., allows developers to electronically distribute their software. Its address is http://www.gate.net/~dransen/index.html. ... **Apple** promoted three company veterans in May. Jim O'Neill was named vice president of operations for the Americas, Brodie Keast was appointed vice president of worldwide product marketing, and Lamar Potts was named vice president of licensing. ... Finally, someone had to clean up Apple's mess, so why not IBM? Except in this case, IBM is **Interstate Building Maintenance,** which has signed on as the new janitorial contractor for Apple's Austin, Texas, facilities. □

Connecting LocalTalk Devices To Your Ethernet Is A Big Deal.

$15 Cash Back on Mini EtherPrint. See Details Below.



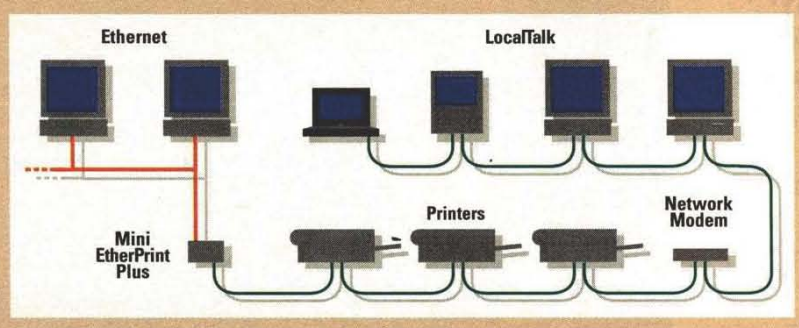
Your Connector Doesn't Have To Be.

No Boundaries
NO LIMITS

Mini EtherPrint™. Up To 8 LocalTalk Connections, New Compact Size.

Connecting LocalTalk printers and other devices to Ethernet has never been easier or less intrusive. The reason? Dayna, the very company that pioneered the technology with EtherPrint™, has made a small improvement that promises big benefits.

It's called Mini EtherPrint, and it's the ideal way to provide a simplified Ethernet connection for as few as 1 or 2 LocalTalk printers to as many as 8 LocalTalk devices of any variety.



Mini EtherPrint products are ultracompact plug-and-print solutions offering Ethernet connectivity for LocalTalk devices. Mini EtherPrint supports 1 or 2 devices, Mini EtherPrint Plus supports up to 8.

Mini EtherPrint connects to your printer with no set-up routines or start-up sequences. Just plug and print. For easy trouble-shooting, we've included power, activity and link status lights, as well as a handy reset switch. And if there's a power outage, Mini EtherPrint will restart and restore its connections automatically. We also include SecurIt™ protection software to prevent unauthorized access to network modems, color printers or other LocalTalk devices.

A competitive price per connection, Lifetime Warranty and 24-Hour Replacement Program make our value particularly tough to beat.

Especially with a $15 cash rebate. Simply send us the UPC symbol, a copy of the invoice showing purchase date, reseller name and address, and coupon from our FAX line, and we'll give you $15 for every Mini EtherPrint you purchase between May 1 and June 30, 1995. All rebate requests must reach Dayna by July 15, 1995.

Call our FAX Response System number below to get your Rebate Coupon. For more information on Mini EtherPrint, or other Dayna products, call us at (800) 443-2962 ext. 813.

FAX Response: 801-269-7340, Doc.#1303

-This offer is limited to end-users. Distributors and resellers are not eligible for this offer.

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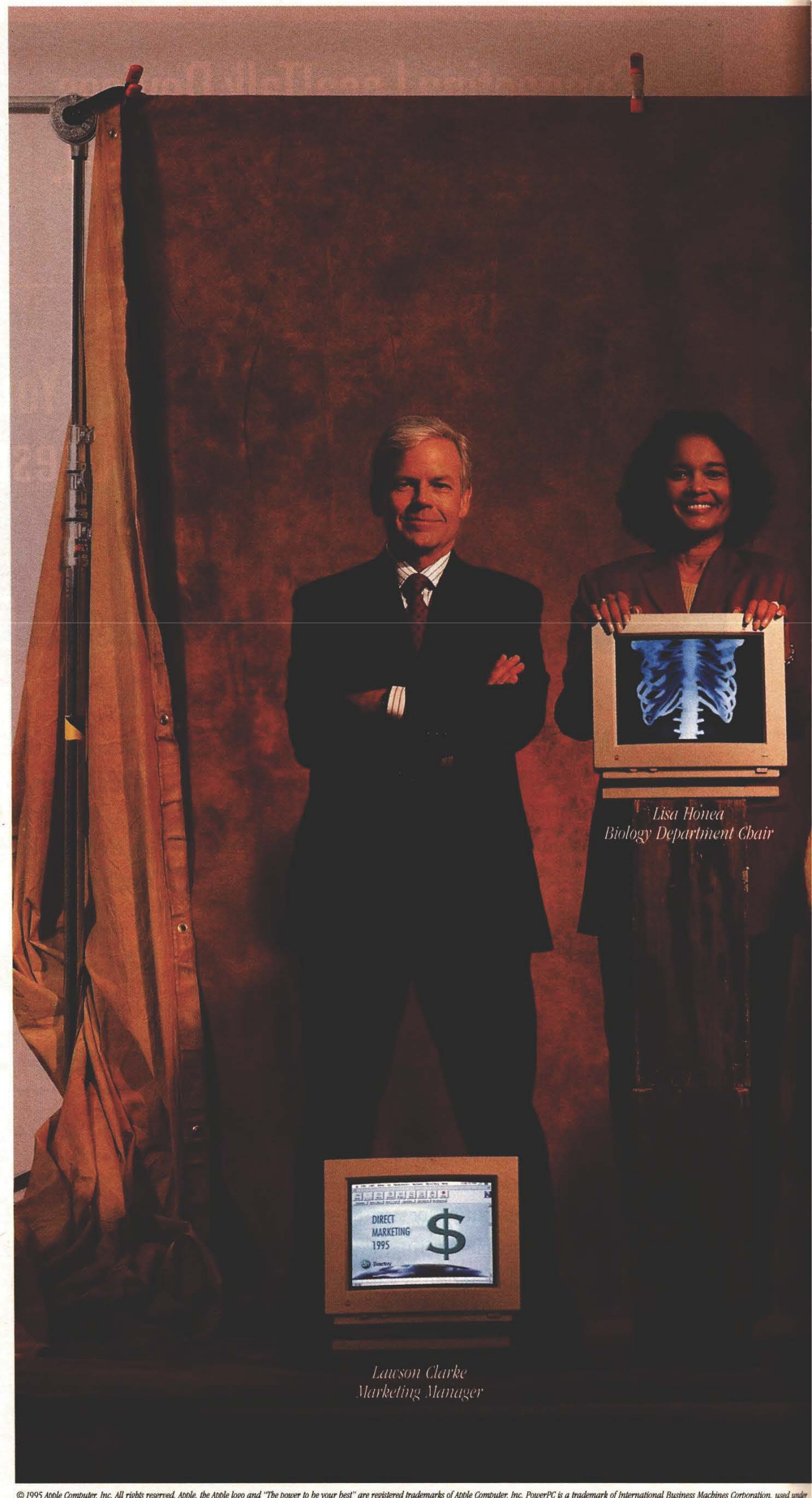

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Subscriptions: Customer Service Department, MacWEEK, c/o JCI, P.O. Box 1766, Riverton, N.J. 08077-7366. Phone (609) 786-8230.

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BPA INTERNATIONAL

The new Iomega

For years, Iomega Corp. has struggled as the also-ran in removable storage for the Mac. A stronghold of Bernoulli bigots, Iomega felt it owned the best technology and priced it accordingly. Meanwhile, its managers could not understand why the market continued to flock to less-exciting, less-expensive Winchester mechanisms.

We're not sure whether Iomega's and Apple's managers have been drinking from the same water source over the years, but it has sometimes seemed that way. Both companies' technology-driven, not-invented-here thinking has stifled their shares of the market.

In each case, however, that narrow-mindedness has changed. Apple has begun to license its OS, and Iomega has shifted away from emphasizing technology for its own sake. Both have revamped their management teams. And they now insist on building products that people will actually buy instead of simply admire.

The first fruit of Iomega's new approach was the widely hailed Zip drive. The company shifted away from premium-priced Bernoulli technology to a dramatically cheaper mechanism, priced at $199 per drive and less than $20 for a 100-Mbyte cartridge. Now Iomega is launching another groundbreaking product aimed at the heart of the Mac professional market. Code-named Viper, the 1-Gbyte hard disk cartridge will sell in the $100 range, while the mechanism will run between $500 and $575. Vipers will have respectable transfer rates and seek times, making them very appealing to graphics and pre-press professionals.

To achieve these goals, Iomega has completely abandoned its entrenched thinking about "the best" technology and adopted a Winchester mechanism for Viper. Although compatibility with other drives is a problem for the installed base of SyQuest and Bernoulli users, the price/capacity ratios of Viper and Zip show that new thinking in management can lead to new products that will excite the market and attract new buyers. Now Iomega's managers need to follow Apple's lead and license their products widely. □

THE SECOND DECADE HENRY NORR

Amid MacIS harmony, a note of discord resounds

Most of the Mac managers I talked with at last month's MacIS conference seemed to like most of what they've been hearing about Apple's product and business plans. But one discordant note kept marring the general harmony: The company still doesn't seem to appreciate what corporate customers require in the area of configuration management.

(Disclaimer: The views I present here are based on impressions I got at the MacIS conference. I do not speak for the organization.)

The facts of corporate life

Network administrators need convenient ways to determine what's happening on users' desktops and, if necessary, to make changes there. Not because they're control freaks, but because such tools are critical if they're to do what is asked of them: to keep the network humming, maintain security, ensure compliance with software licenses, and promptly and effectively assist users when problems arise.

Apple's failure to build control mechanisms into its OS — or to define standard hooks for third-party developers — is a long-standing concern among Mac managers. In fact, an issue that dates back to the introduction of System 7 — the need for more central control over personal file sharing — generated the most vehement griping I heard at the conference. (Several attendees said their companies may bar AppleTalk from their WANs if Apple doesn't address the issue soon.)

But with Copland and component software bringing increased customizability and modularity to the Mac, the problem seems destined to get worse before it gets better. Help desks have a hard enough time talking users through today's relatively uniform graphical user interface — imagine the challenge when desktops differ dramatically among machines. OpenDoc raises a host of problems in the area of data exchange as well as version control. As one conferee put it, "How am I supposed to guarantee that everyone can share documents when users are creating them with components they grab off the Internet someplace?"

Welcome to the real world

Apple claims to be taking an active role in the industry group defining standards in this area, the Desktop Management Task Force. But over and over again, when MacIS members asked, for example, whether Copland would enable them to lock approved settings, or remotely reset systems to a default configuration, or push software across the network, or at least determine versions and settings without physically inspecting a machine, the answer was "No, we have no plans along those lines." (One notable exception: Open Transport settings can be locked.)

Clearly, central control is not a natural priority for a company whose corporate culture is rooted in the ideology of individual fulfillment. But that's an aspect of its traditional ethos I think Apple would do well to leave behind if it hopes to regain momentum in the corporate arena. □

Henry Norr, editor emeritus of MacWEEK, welcomes feedback in the MacWEEK forums on CompuServe or eWorld or at hnorr@ftp.macweek.ziff.com.

LETTERS

2 plus 2 doesn't equal 4

I have seen many references to multiprocessor Macs and am concerned.

A four-processor machine is two and a half times faster than a single-processor machine, not four times. Many factors determine performance in a multiprocessor machine, such as bus speed, cache memory, disk I/O and software to manage processes. (Sounds like the way Apple designs hardware: total system performance.) Multiprocessing *must* be supported by the OS; this counts out Windows 95.

Multiprocessing best suits multiple small processes and multiple users and is more suited for server implementation. Note that server processing is making headway in graphics software such as the Live Picture server (now on Silicon Graphics machines), Open Prepress Interface and distributed rendering.

You can't use SPECmarks to compare multiprocessor machines. Use SPECrate or AIM, which test speed and how many processes can be absorbed.

If Apple is serious about multiprocessing for the desktop, the OS competition is not Windows 95, but Windows NT.

Charles Dostale, system manager
Silver Oaks Communications
Moline, Ill.

OpenDoc reaches next level

I read with great interest in Mac the Knife about possible talk at Apple of including modules for word processing and even spreadsheet functions with OpenDoc when it ships (MacWEEK, May 22, Page 82).

This is exactly the kind of action that can propel OpenDoc, Apple and the computer industry to the next level. The original Macintosh Communications Toolbox (and its consistent text-editing features) played a crucial role in raising the standard of personal computing software and fostering the desktop publishing revolution.

By providing the next level of standards with the coming OpenDoc revolution, Apple can lead by example while providing value and easier access to solutions.

Jason Parker, Smalltalk programmer
Medical Documenting Systems
Minneapolis

Ship dates too compatible

It's really true: Power Computing Corp. is the new name in Mac computing. With some trepidation I ordered a clone. My friends and family questioned my sanity, but I assured them that it was in Apple's best interest to make the clones as good and compatible as possible.

I can rest assured; my Mac clone must be nearly 100 percent compatible. I can draw no other conclusion from Power Computing's ethereal shipping dates. I have order No. 5288. When I ordered in April, I was told it would ship May 10. Then May 15. On May 22, I was told, "It should ship by the end of this week or early next week." I have a suggestion for Mr. Kahng and the Power Computing gang: If you want to distinguish yourself from Apple, set realistic shipping dates.

Dr. Matthew C. Clayton
University of Minnesota, Minneapolis

PIM already exists

In "The Persistence of PIMs" (MacWEEK, May 8, Page 22), you mention that Now Software Inc. should "create a cross-platform, client-server system that could serve the enterprise as well as the individual," and it should be able to "call a meeting; schedule the time, place and resources needed; coordinate it among all the players; link all the necessary documents; and do so without being concerned whether your art director and CEO used Macs while your field sales people and product managers ran Windows." Well, let me tell you that IBM Corp. already has such a product; it's called Time and Place. It will also let you have clients on your machines running OS/2, DOS and Windows, just to name a few. Although this may come as a shock, the Mac client software has the ease of use and look and feel of a Mac application.

Gary L. Wade
Software development consultant
DesiSoft Systems
Irving, Texas

Be careful how you grok

Valentine Michael Smith "was a human brought up by aliens and, as a result, didn't fit in with either his human or foster societies. Apple at times seems to have the same problem" (MacWEEK, May 29, Page 3).

Don't use this analogy! Remember, Mike *dies* at the end of the book. Apple can't die. Who would Microsoft have to copy?

David McElroy
President
McElroy Media
Birmingham, Ala.

How to contact MacWEEK

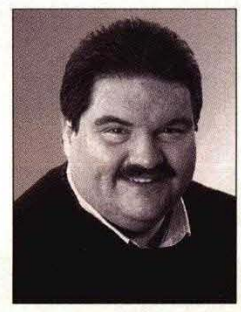
Send letters to MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3651. We can be contacted on-line: CompuServe, 76077,1351; eworld, MacWEEK; MCI, 323-1203; Internet, letters@macweek.ziff.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

THE MAC MANAGER DON CRABB

Grades, Part II: Don and Dan exchange e-mail

Dan, thanks for the interesting e-mail dialogue this week. You were peeved that I gave you an F for your speech at Apple Worldwide Developers Conference (see MacWEEK, May 22, Page 29). You felt that you deserved an I for incomplete, since you were but one week on the job at the time of the conference and had barely gotten your feet wet.

I can understand your dilemma. You really are starting in a hole that represents the vacuum of Apple's past marketing efforts. But that's why your speech hurt. You gave us nothing to fill the hole except the gossamer of "future plans."



I realize that you can't just throw any old marketing debris into the vacuum in hopes some of it will plug the hole. You need time to make real plans and execute the intending campaigns. Otherwise, you'll end of up with Macintosh Test Drives, HeloCars and "Mac Does Windows" campaigns instead of a reflective, aggressive marketing plan that celebrates the superior computing experience of the Macintosh and the Mac OS and saturates the media with that message.

No one said it's easy

As Jimmy Carter once noted, life is unfair.

There is nothing fair about Apple's customers having to fight to keep Macs while Wintel IS goons try to cart them to the corporate dumpster. Or about the way that Apple has left its best customers twisting in the wind with one lame marketing campaign after another. Or about Apple's superior technology languishing to the likes of the wondrously mediocre Wide World of Wintel Computing. Nor is there anything fair about you having to inherit the mantle of Apple's marketing failures.

Let's remember what is at stake. The future of Macintosh-standard computing. It really does come down to that, Dan. Apple's bad marketing over the past 10 years has finally taken a toll on its insanely great technology. You know that. I know that. The Wintel cartel knows that. And your WWDC speech should have acknowledged it.

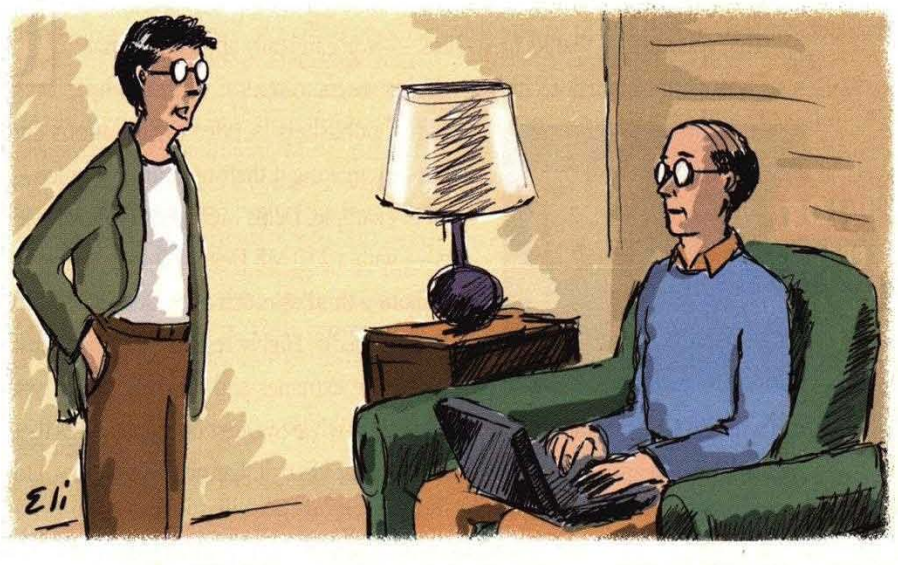
What you should have said

Dan, you should have told us: "Look, gang, we've screwed this deal up for years now. And, damn it, I'm here to tell you that I'm gonna fix it. I've started. A week ago, when I moved into this job, I immediately demanded that my marketing program managers prove to me, in short order, (a) what they think their programs are accomplishing and (b) what their customers think they are accomplishing. And you know what, I've already found that …"

Then you should have told us one insight that we could have used to pin our hopes on. Even if you could not have presented us with any real marketing plans this early, you should have shown us that you could tell a silk purse from a sow's ear by holding up that ear and proclaiming it for the piece of road kill that it is.

That would have signaled, finally, that the days of Apple platitudinizing about how it "gets it" and is going to "fix things" were over and that the Eilers era — where we can count on real customer solutions and real aggressive marketing plans — is starting. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.



"Dad, I've got a date tonight. Can I borrow the laptop?"

Comments? Ideas? Contact Eli at elitoons@aol.com

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Scripter 1.0 is top AppleScript editor and debugger

By Don Crabb

Program lives up to promise as an intelligent scripting development environment.

Main Event Software Inc. announced Scripter 1.0 nearly two years ago. Since then, we've waited anxiously to see if it could live up to its advance billing as a truly comfortable and intelligent integrated AppleScript development environment. After all, we had had our hopes dashed by Apple's awful Script Editor and poor third-party pretenders such as Full Moon Software's ScriptWizard. But the $199 Scripter, which finally shipped during the Apple Worldwide Developers Conference in early May, does live up to its promise and even to much of the hype.

Scripter completely replaces Script Editor, ScriptWizard or any other AppleScript editor you may be using. It offers an environment that is subtly but effectively designed around the way AppleScript works and doesn't work. This environment combines an editor; command browser; application controller; and, for the first time, a debugger into the AppleScript equivalent of the Macintosh Programmer's Workshop.

Scripter requires System 7.0 or later, 8 Mbytes of system RAM (2 Mbytes for the application) and any version of AppleScript.

Scripting done right

AppleScript provides the glue to make Apple events work in both a systemwide and application-specific context for automating and customizing tasks on your Mac. Unlike a high-level programming language, such as C++, it was designed to be used by a general audience of Mac users and managers, not just developers. Main Event Software understood this and designed Scripter the same way.

Scripter is not simply the convenient juxtaposition of script-editing tools; it's a complete environment for successful AppleScript development. Its features aren't just slapped on to make for good box-copy reading; they fit together in a way that helps you write solid scripts.

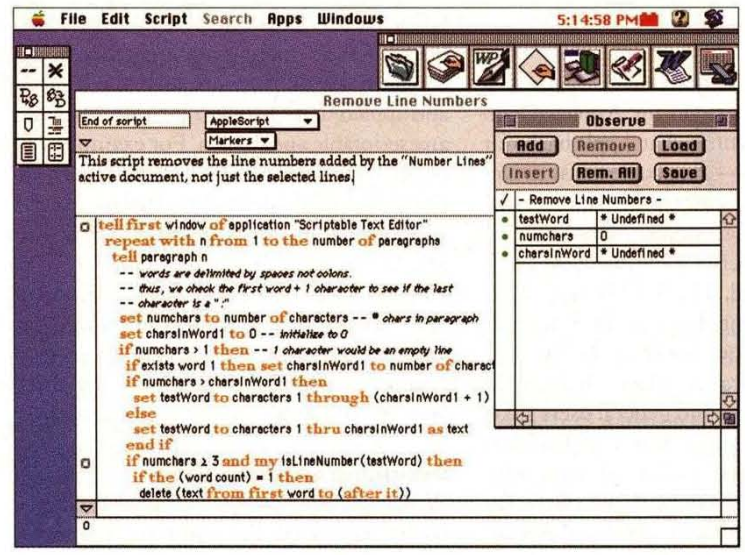
For example, to understand the capabilities of a particular scriptable application, Scripter provides browser windows for examining the commands (and their syntax) and the types of objects that make up the vocabulary of that application. Commands and object descriptions can be assembled using terms from the application's vocabulary, leading to a higher probability that these constructs will serve to accomplish the scriptwriter's goals. In addition, a separate command window allows trial-and-error sessions, encouraging experimentation.

Scripter's Application Bar lets you control multiple scriptable applications (up to eight at a time fit into the bar), so you can get quick information about their application vocabularies and then use builder windows to assemble AppleScript commands. Scripter takes a "snapshot" of an application's vocabulary when you add it to the bar, which makes it a breeze to figure out which applications can be scripted and which cannot (nonscriptable applications won't appear in Scripter's dialogs for the Application Bar), as well as how they can be controlled.

Shortcuts

Scripter provides a host of advanced editing features and shortcuts that will appeal to experienced AppleScript writers, including the capability to create libraries of scripts, test single commands, and otherwise mix and match commands and vocabularies depending on the applications being scripted. You can also gather collec-

See Scripter, Page 31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5:14:58 PM
Remove Line Numbers
End of script
AppleScript
Markers
This script removes the line numbers added by the "Number Lines" active document, not just the selected lines.
tell first window of application "Scriptable Text Editor"
repeat with n from 1 to the number of paragraphs
tell paragraph n
-- words are delimited by spaces not colons.
-- thus, we check the first word + 1 character to see if the last
-- character is a ":"
set numchars to number of characters -- * chars in paragraph
set charsInWord1 to 0 -- initialize to 0
if numchars > 1 then -- 1 character would be an empty line
if exists word 1 then set charsInWord1 to number of charact
if numchars > charsInWord1 then
set testWord to characters 1 through (charsInWord1 + 1)
else
set testWord to characters 1 thru charsInWord1 as text
end if
if numchars ≥ 3 and my isLineNumber(testWord) then
if the (word count) = 1 then
delete (text from first word to (after it))
Observe
Add
Remove
Load
Insert
Rem. All
Save
- Remove Line Numbers -
testWord
* Undefined *
numchars
0
charsInWord
* Undefined *

Main Event Software's Scripter 1.0 provides a complete scripting, debugging and development environment for creating Apple-events scripts. The Observe window gives you powerful controls for testing variables in your scripts.

score card

Scripter 1.0

Main Event Software Inc.
List price: $199
Overall value ◆◆◆◆◆

Scripter 1.0 is an excellent AppleScript construction kit for the Macintosh that should appeal to both experienced and novice scriptors. It provides an integrated scripting environment composed of an editor; debugger; vocabulary and dictionary browsers; semiautomated script builders; and other tools to write, compile, test, execute and use Apple-events scripts. As such, it completely replaces the poor Script Editor that Apple ships with AppleScript 1.1, and it also provides considerable utility to a related application, FaceSpan 2.0 from Software Designs Unlimited Inc. Together, Scripter and FaceSpan make for a dynamic duo in the development, testing and implementation of AppleScript-based applications. If you expect to do anything more than idle fiddling with AppleScript, you need Scripter.

Performance ◆◆◆◆
Features ◆◆◆◆◆
Ease of use ◆◆◆◆◆
Documentation/support ◆◆◆◆

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

IN BRIEF

BeyondMail 2.1

Banyan mail client offers complete messaging solution

Overall value ◆◆◆◆

As e-mail becomes as ubiquitous as the telephone or paper mail, we clearly need a better way to manage our electronic mailboxes. BeyondMail 2.1 for Macintosh from Banyan Systems Inc. is a client program for the company's Intelligent Messaging III mail server that offers a complete messaging and mail-management solution. The program, which starts at $995 for 10 users, employs rule-based technology to let users customize and automate their message-handling tasks. It is fully compatible with Windows, DOS and Unix BeyondMail clients.

Requisites

BeyondMail 2.1 for Macintosh currently works only with Intelligent Messaging III 1.1. This server requires either Banyan's Vines network operating system with the Enterprise Network Services (ENS) for Macintosh option installed or another Unix operating system that can host ENS with Intelligent Messaging, such as IBM Corp.'s AIX, Hewlett-Packard Co.'s HP/UX or Sun Microsystems Inc.'s Solaris.

From a client perspective, BeyondMail requires System 7 or later, a minimum of 11 Mbytes of disk space, and 4 Mbytes of free application memory. BeyondMail is not accelerated for the Power Mac. We experienced crashes with Version 2.1 on Power Mac systems that had more than 16 Mbytes of memory, but this problem was fixed in Version 2.1a, a free update.

You will need BeyondMail for Windows to administer the Mac client, but Mac users can perform some administrative tasks from their workstations using the included BeyondMail Utility. BeyondMail's event-driven rules are also processed by a Windows-based rule-server application.

Installation

Assuming you have all the requisite components available on your network, installing BeyondMail is much like any other Mac application that uses a simple install utility. Our only complaint with the installation is that it wipes out any Vines client preferences you may have previously configured.

See BeyondMail, Page 31

FaceSpan 2.0 provides AppleScript make-over

By Don Crabb

With FaceSpan 2.0, Software Designs Unlimited Inc. hopes to do for Apple's Open Scripting Architecture what Apple has so far been unable to do — get people to use it. Despite its potential to automate tedious tasks and integrate the capabilities of multiple applications, AppleScript has still not taken off as well as it should. The $199 FaceSpan offers an object-oriented, drag-and-drop environment for creating AppleScript applications with graphical interfaces that should appeal to developers and general users alike.

FaceSpan requires at least a 68020 Macintosh running System 7.0.1 or later with 1.5 Mbytes of application RAM (more for very large scripts). You'll also need AppleScript 1.1, which is included in the package.

On its own

FaceSpan 2 is the latest version of the FaceSpan Interface Processor that ships with Apple's $189 AppleScript Scripter's Kit. Like that version (which will continue to ship with the Scripter's Kit), FaceSpan 2 gives you an integrated set of tools for building user interfaces for AppleScript scripts, as well as self-contained AppleScript applications (applets). This is the first time FaceSpan is available as a stand-alone product.

Unlike FaceSpan 1.0, FaceSpan 2.0 is fully compliant with Apple's Open Scripting Architecture, or OSA, and works with any OSA-compliant language, such as AppleScript, UserLand Frontier's UserTalk and CE Software Inc.'s QuicKeys scripts. FaceSpan offers a visual environment to help you design all kinds of script-based applications and applets that can integrate functions from any scriptable application. For example, you could create an application that opens a Claris Corp. FileMaker Pro database, selects a range of data, opens Microsoft Excel and graphs the data. To make it easy to use, FaceSpan lets you wrap a normal Mac menu bar on it, wire your special script-based commands into it and then save it as an executable application that can reside anywhere on your hard disk.

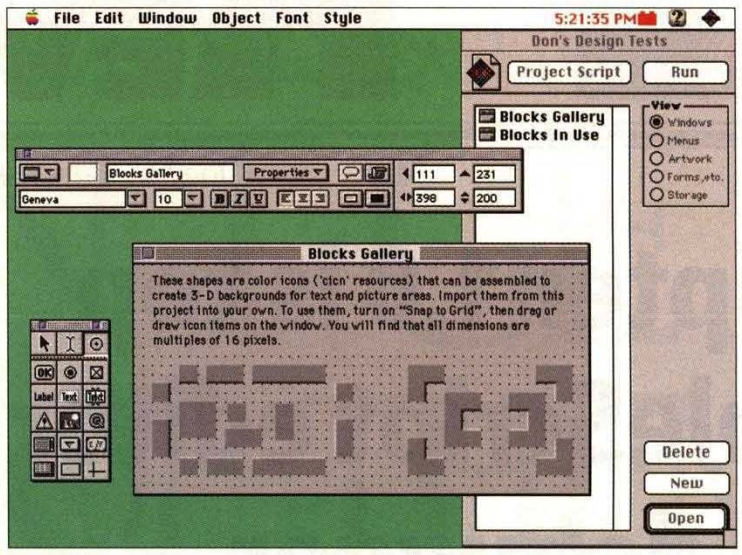
Designing an application

Working with FaceSpan is rather easy once you've traversed the tutorials. FaceSpan does its primary job — providing a reasonable design environment for building OSA-compliant applications — very well. When you launch the program, you're dropped into a multiwindow environment that lets you easily create, lay out and script the objects that will make up your application.

You create your application in FaceSpan's project window, using the tools palette to manipulate the interface objects that will make up your application, and then attaching scripts to the objects. Objects can be any number of standard Mac elements, including buttons, text fields, icons, pop-up menus, gauges, text boxes, tables, list boxes, pictures, scrolling panes, simple graphics and QuickTime movies. FaceSpan lets you build any kind of window, including standard document windows, floating palettes and dialog boxes. To lay out the objects for your application you simply drag and drop.

The heart of FaceSpan's prowess is its property bar for setting object properties. You can modify any object's properties, appearance and behavior — such as dimensions, color, font style and script — as desired. To control your application's menu bar you use Menu Editor. You can build all the standard menus you need with it, set up keyboard shortcuts and mark characters. Each menu and menu item can be scripted. You might, for example, have modal dialogs appear when certain menu commands are issued.

FaceSpan does a very good job of controlling the interface-building process, but beyond its simple graphics line tool it does not provide tools for creating custom artwork or multimedia resources that you might use in your application. However, it does let you import graphics (such as PICT and TIFF files) and QuickTime movies created with other software.



Software Designs' FaceSpan 2.0 allows you to create user interfaces for any OSA-compliant language, including AppleScript. The program's property bar lets you assign properties or scripts to any element of your application.

FaceSpan's major problem area surfaces when you get down to the nitty-gritty of scripting. The script editor that comes with the program is pretty much the standard-issue (and exceedingly lame) Apple Script Editor, with three hierarchical pop-ups for adding properties to design objects. These pop-ups quickly become tedious to use when building a script of serious dimensions.

FaceSpan's script editor includes the AppleScript standard text-formatting package for highlighting keywords with colored and styled text, along with a script-recording button and a check-syntax button. The editor also includes drag-and-drop editing from FaceSpan's message and dictionary windoids to the editing window, but drag-and-drop is not supported from inside the editing window, which is an odd and annoying omission.

Cosmetics aside, the script editor's biggest flaw is the lack of any debugging facilities. Writing AppleScript scripts is anything but a no-brainer. To do it effectively you need to be able to observe your variables and expressions in action, single-step and repeat-step through your script's execution, and debug as necessary. FaceSpan's script editor lacks these niceties, as well as any sort of automated script builder, although the dictionary windoid shows objects and events for scriptable applications, and the message windoid lets you trace your script messages and the results returned.

To get the most out of FaceSpan, you really need a third-party script editor. The best of the current crop is Main Event Software Inc.'s Scripter, which you can set up to open within FaceSpan while working on your FaceSpan scripts.

Give it away now

You can save your FaceSpan applications and run them from the Finder as complete applications, just as you can with AppleScript scripts and applets, as long as your target Mac has AppleScript 1.1 or later installed. FaceSpan can also save miniature applications that take up less space (about 280 Kbytes less than complete applications) but require the FaceSpan extension installed in the target Mac's System folder, as well as AppleScript 1.1. You get a royalty-free license to distribute this extension with your FaceSpan miniature applications. Because of their bigger size, complete applications are most appropriate for users who will be running just this one FaceSpan application and don't want to add the extension to their system.

You can open FaceSpan applications by double-clicking or by dragging and dropping the appropriate documents onto them.

Documentation and support

We were disappointed that FaceSpan 2 lacks any kind of built-in on-line help, such as balloon help, Apple Guide or HyperGuide (although you can use FaceSpan to create help balloons in the applications you build). In a product aimed at a heterogeneous audience of seasoned developers, power users, Mac managers and new scriptors, that's a significant omission.

Fortunately, the tutorial and reference manuals are mostly clear and concise, the supplied tutorial and sample project files make sense, and you get 30 days of free phone and e-mail support before you have to ante up.

Conclusions

FaceSpan 1 already proved its worth as an application prototyper and generator when it was part of the AppleScript Scripter's Kit. The enhancements in the now stand-alone FaceSpan 2 make it suitable for both prototyping and development of large-scale systems, as well as personal applications. Indeed, it's the scalability of FaceSpan 2 that's one of its slickest attributes, along with its easy-to-use visual interface. If you bundle FaceSpan with Scripter you also get around the program's most niggling problem: its weak script editor.

Once OpenDoc has been ported to Windows, Software Designs says, FaceSpan will appear there, too, making it a good candidate for cross-platform application prototyping and development. And because FaceSpan is essentially a tool for manipulating programming objects, Software Designs is positioned to be a big OpenDoc company and plans to fully support OpenDoc parts and containers with FaceSpan. A very solid value at $199, FaceSpan already has its eye on the future, and this may be its biggest value of all.

Software Designs Unlimited Inc. of Chapel Hill, N.C., can be reached at (214) 578-6700 or (800) 322-3772; fax (214) 423-5360; facespan@sdu.com. □

score card

FaceSpan 2.0

Software Designs Unlimited Inc.
List price: $199*
Overall value ◆◆◆◆

FaceSpan 2.0 is a visual interface design environment that takes much of the guesswork out of developing AppleScript and other OSA-based applications and prototypes. FaceSpan makes it easy to customize your Mac's interface with icon-based scripts that can automate the annoying, repetitive tasks you face every day, such as backups, disk checking and repair, e-mail archival, and server updating. It also allows you to integrate the capabilities of any scriptable programs, as well as applications written with other development systems. Our only real complaints are the lack of a decent script editor and on-line help system. FaceSpan is not for novices, but if you have AppleScript or related programming and prototyping experience, you should find it easy to use.

Performance ◆◆◆◆
Features ◆◆◆
Ease of use ◆◆◆◆
Documentation/support ◆◆◆

**Includes one free upgrade and an unlimited royalty-free license to distribute your FaceSpan 2.0 applications. Upgrades from Version 1, $99.*

Scripter

From Page 29

tions of frequently used routines to use whenever you need. Such capabilities will save you time and streamline the process of writing tedious, repetitive constructs.

Scripter's command shortcuts include a tool palette for quickly adding comments, generating file paths, building lists of expressions you will use, and keeping a list of labeled values or expressions. You also get quick-navigation commands for moving your insertion point in a script you're editing, the capability to set markers as script signposts, a command for making try blocks in your script as you're writing it, and a powerful search-and-replace feature that is case-sensitive and direction-sensitive and includes a Replace All command.

Kills bugs dead

One of Script Editor's biggest flaws is its lack of any formal debugging tools — no variable or message watcher and no facilities for testing a single command or step-level debugging. But Scripter has them all, as befits any serious scripting environment.

You can set script breakpoints and single-step between them automatically to test your script. You can also single-step through the code one line at a time without committing to a specific debugging strategy. That's very handy, and it's indicative of the level of debugging support you get from Scripter. The Observe window also lets you add or remove variables for tracking purposes, add or save variables from a list or file, or change the value of an executing variable to see its effect. You can even lock a variable while you debug a script so that it won't update. In short, this is a real program debugger, not some weak imitation.

Scripter's debugger will come in particularly handy if you plan to use the program with Software Designs Unlimited Inc.'s FaceSpan 2.0 to create AppleScript applications, since FaceSpan's built-in script editor lacks debugging and testing capabilities (see story, Page 30). Scripter can actually be set up to open within FaceSpan instead of the FaceSpan's own script editor.

Conclusions

Scripter's nearly two-year gestation has made it into a strong AppleScript development environment for a wide range of users, from those who squirm uncomfortably when you mention "programming" to those who think real programmers use assembly language. Scripter is powerful enough for the latter yet flexible enough for the former.

And if you bundled FaceSpan with Scripter, you would have yourself one great scripting development package. In fact, if Apple were smart, it would license both of these packages, throw in a copy of Danny Goodman's excellent "AppleScript Handbook," the AppleScript 1.1 manuals, and call it the AppleScript Professional Developer's Kit CD-ROM. In the meantime, though, if you're ready to get into scripting, the product to start with is Scripter.

Main Event Software Inc. of Washington, D.C., can be reached at (202) 298-9595 or (800) 616-8320 (orders only); mainevent @his.com. □

BeyondMail

From Page 29

The first time you launch BeyondMail, you must point to the location of both the Public and your personal Inbox folders on the server. If you are not already logged in to Vines, BeyondMail will prompt you for your user name and password.

Composing

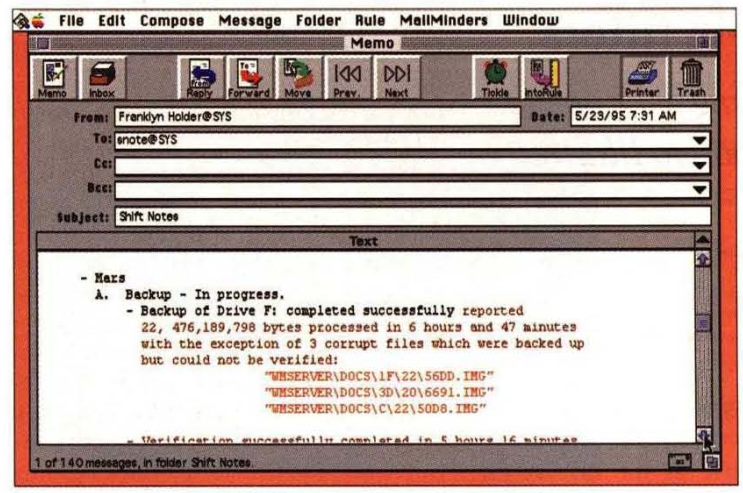
BeyondMail does a good job on all of the routine tasks you expect of an electronic messaging application. The basic BeyondMail client package includes seven forms for creating memos, phone messages, transmittals, requests, routing slips, meeting announcements and customer-support requests. If you want to add your own forms, you will also need to purchase the $495 Windows-based BeyondMail Forms Designer package.

All functions are accessible via a customizable tool bar at the top of the screen. You can click on a button to compose, read, forward or reply to a message. You can also drag and drop messages onto buttons for tasks such as printing and deleting. Addressing is simplified through a combination of address books and StreetTalk Directory Assistance, Banyan's powerful directory service that lets users quickly search for information maintained in its distributed, automatically replicated database. You can use both public and private address books to store frequently used addresses and lists.

Custom tuning

BeyondMail can do much more than simple messaging, with numerous capabilities that far exceed those of competitive products such as CE Software Inc.'s QuickMail, Microsoft Mail and Lotus Development Corp.'s cc:Mail. We never thought we would see an electronic messaging application reach the point of "feature bloat," but BeyondMail is certainly getting there.

The program is customizable to the nth degree. You can tailor the appearance of the tool bar and some of the menus any way you like. For example, you can create buttons for composing specific forms, spell checking, changing fonts or adding rules. Network administrators can create default configurations that govern the appearance of the program to an individual or a group. Because the configuration is stored in your Inbox, you can move from workstation to workstation and maintain the same customized appearance to your BeyondMail application — even between Mac and Windows clients.


File Edit Compose Message Folder Rule MailMinders Window
Memo
Memo Inbox Reply Forward Move Prev. Next Tickle intoRule Printer Trash
From: Franklyn Holder@SYS
Date: 5/23/95 7:31 AM
To: snote@SYS
Cc:
Bcc:
Subject: Shift Notes
Text
- Mars
A. Backup - In progress.
- Backup of Drive F: completed successfully reported
22, 476,189,798 bytes processed in 6 hours and 47 minutes
with the exception of 3 corrupt files which were backed up
but could not be verified:
"WMSERVER\DOCS\1F\22\56DD.IMG"
"WMSERVER\DOCS\3D\20\6691.IMG"
"WMSERVER\DOCS\C\22\50D8.IMG"
1 of 140 messages, in folder Shift Notes.

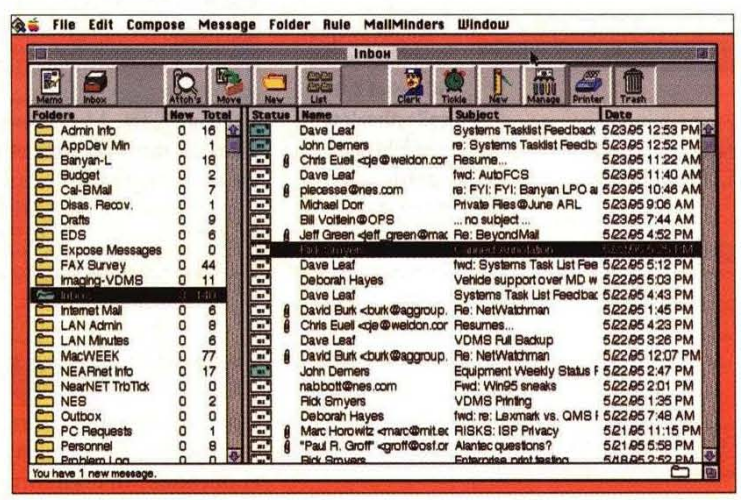
One notable feature of BeyondMail is its support for RTF. Formatting information is stored in an attachment to the message, so non-BeyondMail clients or recipients can view the message as plain text.

BeyondMail rules

BeyondMail's biggest strength lies in its rule-processing technology. You can use the program's four MailMinders to automate basic mail-handling chores. The Message Clerk MailMinder automatically moves any incoming mail to predesignated folders. The While I'm Out MailMinder answers your mail for you during a specified period. AutoForward will automatically forward specified mail to other users while you are away. AutoTickle lets you set actions, such as sending a message, to occur at a predefined time.

For more advanced rule processing, BeyondMail lets you create sophisticated messaging-based applications using its rule language, BeyondRules. Rules are akin to macros and run either locally or on the BeyondMail Rule Server. There are 14 "when" events that can trigger a rule. Rules can perform a gamut of tasks, from something as simple as automatically appending certain messages to a text file to constructing something as complex as a purchasing requisition application that routes mail to various individuals based on properties of the message.

You create rules in BeyondMail's Rule Editor. Rules follow "if-then" logic and are easy to set up. To prevent syntax mistakes, the editor's Function and Action buttons let you paste commands rather than type them. There is currently no debugging mechanism, which can make problem solving difficult, but we expect Banyan to include a debugger in a future release of the product.


File Edit Compose Message Folder Rule MailMinders Window
Inbox
Memo Inbox Attch's Move New List Clerk Tickle New Message Printer Trash
Folders New Total
Admin Info 0 16
AppDev Min 0 1
Banyan-L 0 18
Budget 0 2
Cal-BMail 0 7
Disas. Recov. 0 1
Drafts 0 9
EDS 0 6
Expose Messages 0 0
FAX Survey 0 44
Imaging-VDMS 0 11
Internet Mail 0 6
LAN Admin 0 8
LAN Minutes 0 6
MacWEEK 0 77
NEARnet Info 0 17
NearNET TrbTick 0 0
NES 0 2
Outbox 0 0
PC Requests 0 1
Personnel 0 8
Status Name Subject Date
Dave Leaf Systems Tasklist Feedback 5/23/95 12:53 PM
John Demers re: Systems Tasklist Feedb 5/23/95 12:52 PM
Chris Euell <cje@weldon.cor Resume... 5/23/95 11:22 AM
Dave Leaf fwd: AutoFCS 5/23/95 11:40 AM
plecesse@nes.com re: FYI: FYI: Banyan LPO a 5/23/95 10:46 AM
Michael Dorr Private Files@June ARL 5/23/95 9:06 AM
Bill Voltein@OPS ... no subject ... 5/23/95 7:44 AM
Jeff Green <jeff_green@mac Re: BeyondMail 5/22/95 4:52 PM
Dave Leaf fwd: Systems Task List Fee 5/22/95 5:12 PM
Deborah Hayes Vehicle support over MD w 5/22/95 5:03 PM
Dave Leaf Systems Task List Feedbac 5/22/95 4:43 PM
David Burk <burk@aggroup. Re: NetWatchman 5/22/95 1:45 PM
Chris Euell <cje@weldon.cor Resumes... 5/22/95 4:23 PM
Dave Leaf VDMS Full Backup 5/22/95 3:26 PM
David Burk <burk@aggroup. Re: NetWatchman 5/22/95 12:07 PM
John Demers Equipment Weekly Status F 5/22/95 2:47 PM
nabbott@nes.com Fwd: Win95 sneaks 5/22/95 2:01 PM
Rick Smyers VDMS Printing 5/22/95 1:35 PM
Deborah Hayes fwd: re: Laxmark vs. QMS I 5/22/95 7:48 AM
Marc Horowitz <marc@mit.ec RISKS: ISP Privacy 5/21/95 11:15 PM
"Paul R. Groff" <groff@osf.or Alantec questions? 5/21/95 5:58 PM
You have 1 new message.

The standard view for BeyondMail lists all your folders in the left side of the window. Clicking on a folder displays its messages on the right side. The application uses drag-and-drop to perform such tasks as filing and printing messages.

Performance

BeyondMail's performance is not quite up to that of competitive products, especially on Power Macs. The program supports RTF in the body of a message, which is a great feature, but this seems to slow down scroll rates when you are reading a large message that has a variety of fonts, styles and colors. Also, performance via a remote connection using Apple Remote Access is quite slow.

Documentation and support

BeyondMail's documentation is divided into a series of well-designed books. A User Guide covers all the bases for general use. A Rule Book provides coverage of BeyondMail's rule language. Other manuals cover both Mac- and DOS/Windows-based administrative tasks. On-line help is complete and uses a model that loosely resembles the Microsoft Help system.

Banyan's technical support is excellent. The company worked with us through a number of problems and was able to resolve all the issues that came up during our testing.

Conclusions

Banyan's BeyondMail 2.1 for Macintosh is easily the most full-featured messaging application we have seen. Even without its event-driven, rule-based message handling, its configurability, support for rich-text messages, and integration with StreetTalk and Intelligent Messaging III set it apart from the competition. With the companion Rule Server, Forms Designer and rules, you can create complete, messaging-based work-flow applications with relative ease. The program's only real downside is its lackluster performance. BeyondMail currently requires Vines or Banyan's ENS and Intelligent Messaging III, which may be tough for some sites to swallow, but Banyan has said that the Mac client will soon be available for Novell NetWare MHS networks, which will broaden its potential base. While it's more requirement-heavy than the competition, BeyondMail is worth it for those who need a messaging program that can do anything.

BeyondMail is $995 for 10 users, $1,895 for 20 users and $8,500 for 100 users. Forms Designer is $495, and Professional Rule Server is $995.

Banyan Systems Inc. of Westboro, Mass., is at (508) 898-1000 or (800) 222-6926; fax (508) 898-1766; http://www.banyan.com.

— By Jonathan A. Oski

In Brief continues on Page 32

SG plug-in filters

Add-ons bring 3-D, object and color tools to Illustrator

Overall value

SG Relief 1.0 ♦♦♦

SG ToolBox-1 ♦♦♦♦

SG ToolBox-2 ♦♦♦♦

After an initial year of dormancy, the market for Adobe Illustrator plug-ins is becoming as active as the market for Adobe Photoshop plug-ins. Three sets of Illustrator-compatible filters, imported from Scarlett Graphexx BV in Breukelen, the Netherlands, have joined the fray.

The filters — SG Relief 1.0, SG ToolBox-1 and SG ToolBox-2 — work with both Illustrator 5.0 and 5.5.

The $99 SG Relief collection lets you create simple 3-D effects, while the $44 SG Toolbox-1 and $89 SG Toolbox-2 filter sets provide powerful controls for manipulating objects and managing color, respectively.

Although Macromedia FreeHand 5.0 supports Illustrator plug-ins, Scarlet Graphexx issues a disclaimer that these filters were developed and tested using Illustrator only and that they may not function correctly using FreeHand.

> Experienced Adobe Illustrator users will find many uses for these well-implemented plug-ins.

Let's begin

Installation is simple, and the program can be installed in English, Swedish, German or French. Unfortunately, each set of plug-ins is copy-protected. The installer will let you install three copies of each set but will not let you uninstall if you want to move the filters to another machine. Although the copy-protection scheme is transparent once the software is installed, it's still frustrating to lose your copy-protected filters to a drive crash or power failure.

Once installed, each plug-in collection appears in its own submenu within the Filters menu of your application.

How do you spell 3-D?

SG Relief is a collection of seven plug-ins that allow you to select an object and distort it as if it were being wrapped around a 3-D shape.

With SG Relief, you can wrap any Illustrator object around a sphere, cylinder, diamond or cone. In addition, the program can distort your object so it looks as if it is floating on water or rippled by waves. You can also freely distort your object as if it were attached to a stretchy mesh.

Applying a distortion is simple: You select the object to be manipulated and then choose the appropriate filter from the SG Relief submenu. Each filter includes a number of options. For example, the Globe filter provides a dialog that lets you specify the height and diameter of the globe that you will wrap your object around.

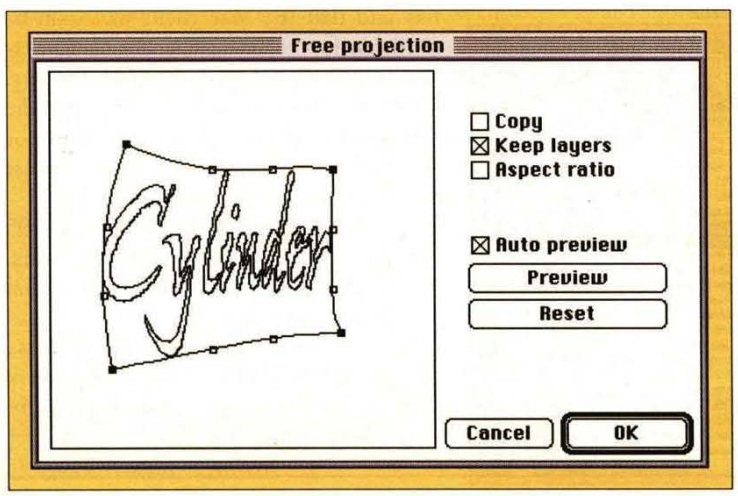
Being objective

SG Toolbox-1 contains five object-management filters that perform basic but important operations that Illustrator should have had a long time ago.

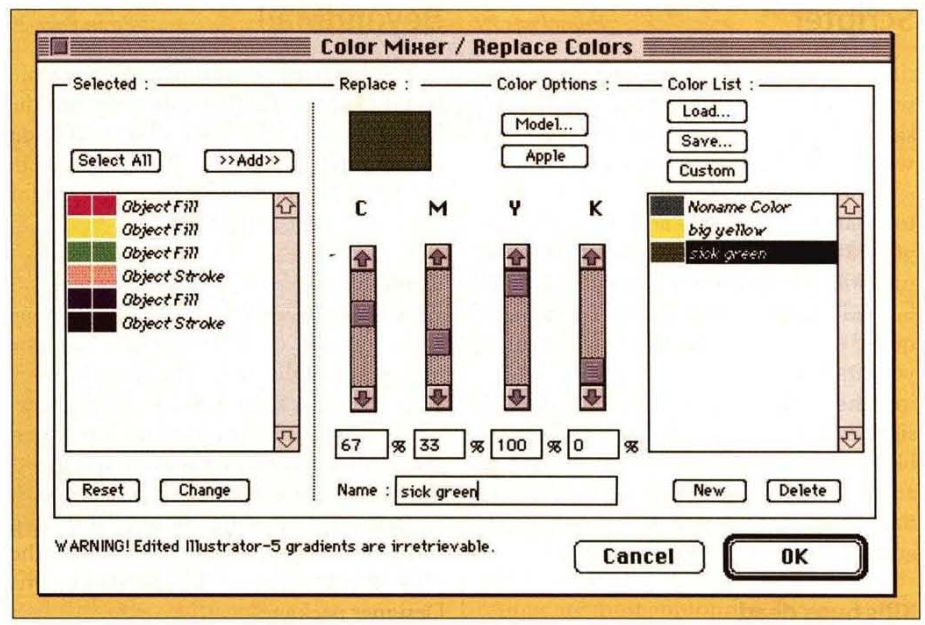
For example, the Move Objects plug-in lets you move an object forward or backward in the stacking order — a much smoother operation than using Illustrator's clunky Paste in Front and Paste Behind commands.

A simple dialog with two buttons lets you move any selected objects forward or backward within their layer. Holding down the Command key while pressing the buttons will move objects between layers.

For further manipulations, the Exchange filter will automatically swap the stacking order of any two selected objects. The Back to Front and Front to Back filters let you move an object in front of or behind another object. These filters make it easy to reorder objects in a complex illustration without concern for an object's layer. You simply select two objects and choose the appropriate filter. The filters will automatically move the objects between layers if needed. Finally, an Object Coordinates plug-in allows you to enter numeric coordinates to reposition an object.



The Free projection filter in the SG Relief 1.0 collection lets you fold and stretch your Illustrator objects as if they were sitting on a stretchy plane.



The Color Mixer/Replace Colors filter, part of the SG ToolBox-2 collection, makes it simple to replace or change colors of objects within or between Adobe Illustrator documents.

Although Illustrator 5.5 will let you easily apply colors to an object's stroke or path through the use of a simple palette, its color-management features end there. SG Toolbox-2 augments Illustrator's controls with five extended color-handling filters.

Color changes

The Edit Curves filter allows you to change the color of any selected objects via a curve interface that will be familiar to users of high-end retouching programs such as Photoshop or HSC Software Corp.'s Live Picture. As in those programs, when you manipulate the CMYK curves that appear in the dialog, you change the color of the selected objects.

Color Mixer/Replace Colors lets you use slider controls to mix new colors, which can then be saved in a list. These lists can be loaded later, allowing you to easily move colors from one document to another. Like all of the Toolbox's filters, the Color Mixer supports several color models, including CMYK, CMY and RGB.

The Color Mixer also lets you easily replace colors in any selected objects by choosing a new color and pressing the Replace button. Gradients, however, cannot be altered by the Replace Colors feature.

The Random Color Replace filter will change the color of objects to a randomly selected color.

The Convert to Grayscale filter allows you to convert your entire document or selected parts to gray-scale. An Options button lets you exclude certain types of colors, such as strokes or fills.

Finally, the Multitone filter allows you to create multiple tone effects (such as duotones or tritones) similar to those you might create in Photoshop. Pantone or CMYK colors can be chosen and then automatically applied to selected objects to create multitone effects.

Documentation and support

While SG Relief ships with a printed manual, documentation for the other two collections is in the form of a small application. In both forms, the haphazard translation from Swedish to English makes for occasionally difficult reading. On top of that, the information that is provided is fairly technical, with little or no tutorial information. You're better off just trying to figure out the plug-ins on your own.

Scarlet Graphexx's filters are marketed domestically by Lips Enterprise Inc. Unfortunately, this small company does not maintain a technical support department, so getting assistance can be difficult. Although the filters are easy enough to use, this lack of reliable support needs to be resolved.

Conclusions

All three collections of SG filters add valuable functionality to Illustrator.

SG Relief is speedy and produces very good results. However, of the three filter sets, it is probably the least valuable, unless you need to create a lot of simple 3-D effects.

It's easy to become dependent on SG Toolbox-1, the object-management filters. Scarlet Graphexx has done a fine job with these tools, but having to access this sort of functionality through the Filter menu rather than as normal commands is unfortunate. However, as long as these features are add-ons, this filter set is an important one.

SG Toolbox-2 is a very good supplement for Illustrator users who do a lot of color work. The collection makes it much easier to manage color between documents as well as change color within a document.

The only downside to the SG filters is the lack of available support from Lips Enterprise and the annoying copy protection. However, experienced Illustrator users who can work around any problems they encounter will find many uses for these well-implemented plug-ins.

A five-user pack of SG Relief is $396, a five-user pack of SG Toolbox-1 is $176, and a five-user pack of SG Toolbox-2 is $352.

Lips Enterprise Inc. of Sturgeon Bay, Wis., can be reached at (414) 743-3262; fax (414) 743-3316. — *By Ben Long*

PhotoFix 1.0

Microspot's image editor and browser simple but powerful

Overall value ◆◆◆

To address the needs of users who want to perform simple image editing or compositing but don't want to wrestle with a high-end product, Microspot USA Inc. has released PhotoFix 1.0.

Like Apple PhotoFlash, PhotoFix incorporates an image cataloger and a simple tool set. The $249 PhotoFix also includes high-end features, such as a Cloning tool, alpha channel masks and a printer-calibration system.

Although it is Power Macintosh-native, PhotoFix is also intended for users with less powerful systems. Minimum requirements are a Mac II, System 7 and 2.5 Mbytes of RAM. The application itself takes up a tiny 1.1 Mbyte of disk space.

Go ahead and browse

The PhotoFix package is divided into two applications: the PhotoFix Browser, which is an image cataloger, and the main PhotoFix application.

The Browser lets you create, sort and search through catalogs of images. You can use PhotoFix to scan images (through Adobe Photoshop-compatible Acquire plug-ins) or acquire them by other means. Double-clicking on an image in the Browser launches PhotoFix and loads the image.

To create a catalog you choose New Catalog from the Browser File menu and select a location and volume; the Browser automatically starts cataloging. A Browser catalog can contain as many as 150 PICT, TIFF or Photo CD images. If your catalog fills up, the Browser will automatically create a new file and continue cataloging.

The Browser is speedy, probably because the small thumbnails it generates are fairly low-resolution and grainy. They are, however, detailed enough to identify an image. Unfortunately, because the program recognizes only three file formats, it is of limited use for cataloging large, CD-based collections.

Images can be represented as large or small thumbnails or can be shown in List view; you can easily add keywords to the images in List view. The program's basic search facility, which can be used from any view, lets you search any and all open catalogs for keywords, titles or images of particular sizes (the dialog asks for queries in Kbytes).

> PhotoFix is good for users who want to edit images or create composites but don't need the complexity of Photoshop.

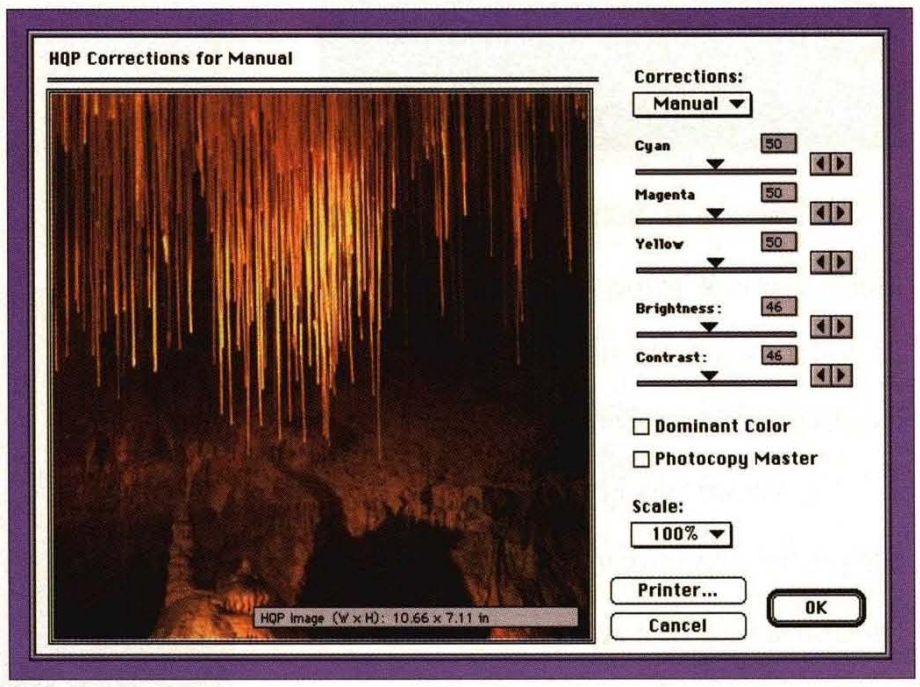
Toolin' along

The main PhotoFix application has a straightforward interface. Three palettes — Tools, Colors and Info — supply you with an assortment of tools and information.

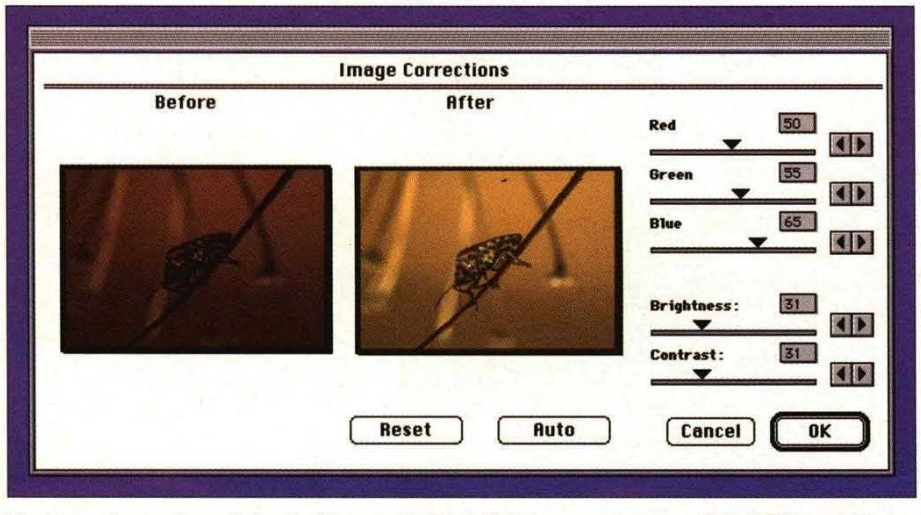
PhotoFix's Tools palette has a nice range of tools, including the expected selection tools (Lasso, Magic Wand, Rectangular Selection and Oval Selection) and simple paint tools (Line, Oval Drawing, Rectangular Drawing, Pencil, Paint Bucket, Eraser and Airbrush). There are also more-sophisticated tools, such as Dodge, Burn, Gradient, Sharpen and Blur, as well as a Photoshop-like Clone tool.

We found the tools very comfortable to use and were pleased that the paint ones included sophisticated options such as size and transparency. Unfortunately, brush size can be managed only through the Brush dialog; there is no palette of brushes, which makes it difficult to quickly switch brush sizes.

PhotoFix takes a very different approach from PhotoFlash (see MacWEEK, Oct. 31, 1994, Page 33). Where the $129 PhotoFlash tries to automate as many tasks as possible, PhotoFix forsakes automation for a more expanded and powerful tool set. This is a much better approach for intermediate users than the one in PhotoFlash, whose automatic commands don't always do everything you'd like and leave you no options for making further corrections. For example, although PhotoFlash's Dedust tool provides a simple way of removing dust from an image, if the program misses something, you have no tools (such as Paint Brush or Cloner) to manually touch up the image.



PhotoFix allows you to specify color corrections at print time; by using simple sliders, you can adjust CMY, brightness and contrast values. These controls affect only printed output.



The Image Corrections dialog in Microspot's PhotoFix lets you color-correct PICT, TIFF and Photo CD images. Simple slider controls and Before and After previews make this an easy process.

Conversion

You can convert images among four color modes: RGB, gray-scale, monochrome bit maps and indexed color. PhotoFix supports up to 32 levels of Undo.

PhotoFix offers simple correction controls through the Image Corrections dialog, which has sliders for brightness, contrast and RGB values. These controls affect the entire color range of an image; no control is given for adjusting colors in a particular range or temperature, such as shadows, highlights and midtones.

Like higher-end editors, PhotoFix can create selections and masks using gray-scale alpha channels. These selections can be feathered, edited and copied from document to document. While alpha channels can be daunting to new users, they let you create complicated composites.

PhotoFix creates masks by making entirely new gray-scale documents, whose contents can be loaded into your image as a mask. Keeping the images and masks in separate documents can become confusing as a composite gets more complicated. We'd like to see a more streamlined masking interface.

HQP

PhotoFix's printing features contain a simple but effective color-calibration system. Dubbed High Quality Printing (HQP), it allows you to create a printer profile. After you define your printer through the Printer Settings dialog, HQP prints a test page of numbered swatches in either color or gray scale. To calibrate your printer, you choose the swatch that looks best to you and enter its number in the dialog. If you're not satisfied with the automatic calibration, you can manually adjust the levels for the printed image.

We tested PhotoFix's HQP features on Tektronix Inc.'s Phaser 540 color laser printer and Apple's LaserWriter 16/600. Printing with PhotoFix's calibration greatly improved the output of the 540. We noticed little difference, however, between the calibrated and uncalibrated output from the LaserWriter 16/600.

PhotoFix's HQP Corrections dialog supplies sliders that let you manually control brightness, contrast and CMYK values for an entire printed image. These values do not affect the original image.

Documentation and support

PhotoFix's small manual has very limited tutorial information and a reference section that is little more than a discussion of each menu and dialog. Technical support was fine when we could reach someone, but we were often forced to leave our number and wait for a call back. As Microspot is a small company, this comes as no surprise.

Conclusions

PhotoFix is a good product for its intended audience. It offers a well-rounded tool set and some higher-end features, such as masking, but without Photoshop's difficulty and complexity. The program's HQP feature makes it easy to get good results out of any printer with a minimum of effort.

Although not as easy as PhotoFlash's AppleScript-driven automation, PhotoFix's tool set is much more powerful, and its performance is quite a bit better. However, we'd like to see the Browser support more file formats, at least JPEG and GIF (Graphic Interchange Format); the masking interface improved; and the manual revamped. The price tag may be a little steep for the target market, but if you can afford it, PhotoFix is a good choice.

Microspot USA Inc. of Saratoga, Calif., can be reached at (408) 253-2000 or (800) 622-7568; fax (408) 253-2055; microspot@applelink.apple.com. — *By Ben Long*

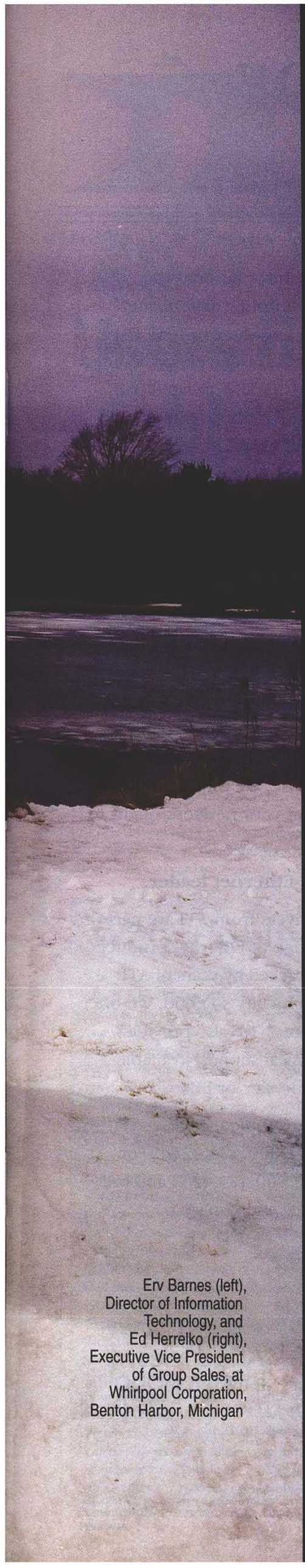
How Apple is making it easier to move a refrigerator like this.

Today's sales environment is more competitive than ever. Which is why Whirlpool armed its field force with the ultimate sales weapon: the Macintosh® PowerBook® computer.

The reason? Says Erv Barnes, "After evaluating all the notebooks on the market, we chose PowerBook because it was by far the easiest for any salesperson to learn. Instead of becoming a doorstop, the PowerBook is being adopted by the field with unbelievable enthusiasm."

Salespeople are able to tap into Whirlpool's information base at the home office to get competitive information, pricing, inventory data—instantly, during a sales call. This way, they can answer questions more quickly and accurately, make better-informed decisions, appear more professional and, ultimately, close more sales. Plus, with the built-in multimedia capabilities of the PowerBook computer, salespeople can show videos and animations, making a normal sales presentation more persuasive than ever.

All of which can give your salespeople a new power, too. The power to be more responsive, more productive, more effective. The power of Macintosh. The power to be your best.®

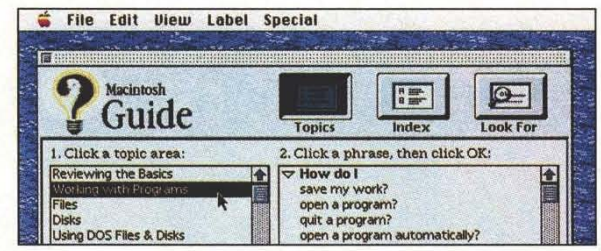


Erv Barnes (left), Director of Information Technology, and Ed Herrelko (right), Executive Vice President of Group Sales, at Whirlpool Corporation, Benton Harbor, Michigan

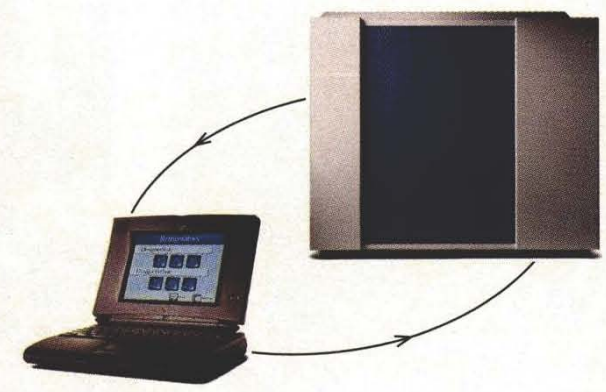
"Making the sale means having the answer. With this computer, we can get the information our customers need, right on the spot. Making the sale means being persuasive. By delivering presentations on the PowerBook, we can get our point across with enormous impact. Combine this with the fact that it works with our mainframes, Intel-based PCs and Windows, and we're talking about a tool that's not just giving us a competitive edge. It's transforming the way we do business."

–Ed Herrelko

This is Whirlpool's interactive on-screen sales presentation. With it, salespeople can show video clips of Whirlpool commercials and product demonstrations—a more dramatic and impactful way to sell competitive product advantages.



Your salespeople want to sell, without being confused by complex technology. With features like Apple® guide—which takes users step-by-step through the Macintosh—Whirlpool's people mastered the computer with minimal training. Yours can too.



The Macintosh PowerBook is compatible with Whirlpool's PCs and mainframes.* From any remote location, their salespeople can effortlessly tap into Whirlpool's vast store of product information—for immediate answers to customers' questions.

To learn more about how you can arm yourself—and your sales force—with the Macintosh PowerBook, call **1-800-332-2932** (ask for **ext. 100**), to receive the free Apple Mobile Solutions kit.

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Apple

*Whirlpool uses RemoteWare from Xcellenet, Inc., for access to the IBM mainframe, Passport for Macintosh from Advantis for IBM 3270 terminal emulation and cc:Mail Mobile from Lotus Development Corporation to exchange e-mail between Macintosh and Windows environments.

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MW APTI

SUCCEEDING HTML

Portable-document companies are jockeying for position (see the Gateways Focus On, MacWEEK, June 5, Page 18).

NETWORKING

Users find Mac a viable Web server

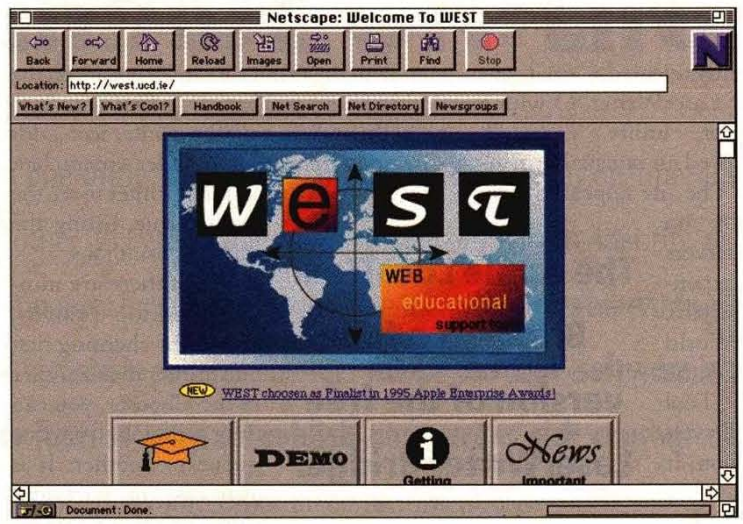
By Richard Rawles

There seems to be a natural migration path from desktop publishing to the Web.

The same graphics-oriented publishers, advertising agencies and corporate marketing departments that have found the Macintosh so conducive to desktop publishing are rushing to establish a presence on the expanding World-Wide Web.

What's made such a move possible has been a Macintosh version of the Web's HTTP (Hypertext Transport Protocol), developed by Chuck Shotton of Biap Systems Inc., which allows Macs to serve up documents created in HTML (Hypertext Markup Language) to Web browsers on the Internet. HTTP allows the server to manage multiple simultaneous file transfers to clients on the Web.

StarNine Technologies Inc. recently released WebStar, an upgrade to Shotton's MacHTTP that allows users to add a variety of plug-in applications, called CGIs (Common Gateway Interfaces), that extend HTTP's functionality to include data capture, e-mail and other features such as clickable maps. In addition, NetWings Inc. entered the market with NetWings, an HTTP server built on top of ACI US Inc.'s 4th Dimension that integrates forms and database functionality. It includes e-mail and list-server capabilities.



StarNine's WebStar server software was used to create this Web Educational Support Tools (WEST) on the Internet.

All of this is good news for Mac-based graphics-oriented shops that want to establish their own presence on the Web without the overhead of Unix. Alexandria, Va.-based The Advize Group (http://www.advize.com), which uses NetWings, provides Web support to advertising agencies and their clients. "We decided to stay on the Mac platform because it was comfortable for all [our clients]," said Bruce Labovitz, group president.

For many in the graphics field the migration from desktop publishing to the Web constitutes a natural evolution. "Anyone interested in desktop publishing will be interested in Web publishing," said Eric Bickford, who manages the Mac Webmasters consultants database at http://www.macweb.com. "Because the installed base of desktop publishing and design houses are going to do their own Web publishing, we expect the Mac to be the preferred platform."

Doubts persist, however, about the Mac's viability as a Web server capable of handling thousands of transactions a day. This could be because of the limited number of simultaneous connections Mac-based HTTP servers can support. Also, the Mac OS does not support multiple threads.

According to Brad Schrick, who maintains a list of more than 60 Mac server sites at http://www.ape.com, Mac-based HTTP servers have had to overcome the perception that they are somehow unreliable and inferior to Unix servers. But, he maintained, once you get a Mac to a stable configuration, "the machine is very reliable." Schrick cited months of trouble-free operation from his Performa 577 running WebStar using an Ethernet-to-T1 connection. But he recommended that Web publishers dedicate a Mac to serving up pages.

"The main thing with the Mac is that it allows you to get started," Schrick said. "You can test the waters for a few hundred dollars a month in connection charges." Dollar-for-dollar, he said, the Mac outstrips Unix in price/performance. And, given that connections rather than processors are the cause of bottlenecks, a Power Mac Workgroup Server 8150 or 9150, such as those Apple uses for its www.apple.com and quicktime.apple.com Web sites, should be able to handle hundreds of thousands of hits a week. "You are likely to run out of bandwidth well before you run out of processor power," said Joe Holmes, an electronic information coordinator from Sonoma State University in Rohnert Park, Calif., who ran a test comparing Macs and Unix. While NetWings requires a Power Mac, WebStar can run on 680x0 machines.

Another issue Mac-based Web publishers face is multiple domains — whether it's possible for one system to host different sites. Using NetWings and his network, Labovitz is able to manage multiple domains for his company's own pages as well as those of his clients.

Although each default home page requires its own processor, Labovitz is able to store pages on any hard drive that he can mount and manage them all from his Power Mac 8100. "What it does is give me extreme power in a one-stop solution for running a Web server," he said.

There are concerns that MacHTTP's lack of support for the Secure Sockets Library feature of the HTTP protocol compromises a site's security. These concerns should be allayed in a forthcoming release of WebStar. Besides, the difficulty of hacking into the Mac OS offers a first line of defense against intruders. Jon Wiederspan, who runs a site devoted to cataloging and reviewing Mac Web development tools (http://www.uwtc.washington.edu/computing/www/mac/directory.html), said, "You could give somebody your [Internet Protocol] address, [but] they can't do a thing with it."

Making the connection

While a dedicated 28.8-Kbps connection for less than $100 per month can get your pages onto the Web, Bickford said, "for the typical small business, the biggest problem is bandwidth [and cost]." Higher-speed connections cost more. But if publishers don't wish to dedicate a Mac as a Web server or would

See Solutions, next page

Web: Publish or perish

"There is undifferentiated chaos on the network," said Chet Grycz, educational consultant for The Well, an Internet service provider and longtime "alternative" on-line community. "What we want is some way of differentiating what's worth reading and spending our time on."

The former director of the University of California's Scholarship and Technology Project and a force behind Standard Generalized Markup Language (SGML), HTML's precursor, Grycz currently is creating World-Wide Web pages for Santa Fe Ventures Inc.'s Today's First Edition, a half-hour broadcast television program about books. Viewers of the program will be able to turn to the Web for more information about titles and authors profiled on the program, to order books, and to join a discussion group on The Well (http://www.tfe.com).

Print publishers, while quick to recognize the marketing potential of the Web, also face competition from upstarts that see the Web as a way to get their ideas out to a mass audience quickly, according to Grycz. "The proliferation of Web sites by traditional publishers has increased dramatically," he said. On the other hand, "the presentation of material [from competitors] is going to be just as good as any publisher can do."

Consequently, he said, the traditional publisher's imprint will lose much of its value as a signifier of what's worth reading. The resulting level playing field, Grycz said, will open new opportunities for editors and critics capable of sifting through the vast amounts of material. Such people, and not publishers, will provide the good Web seals of approval.

"What's missing right now is the imprint and quality-control indicators," he said. That will change as new communities with their own values emerge from the interactive nature of the Web. But, he said, "When you talk about the influence of the Web on publishing, let's not kid ourselves." What with the deals like the one struck between Rupert Murdoch and MCI International Inc. proliferating, "we're seeing a concentration of decisions about content in smaller and smaller numbers of places." — By Richard Rawles

MACINTOUCH RIC FORD

Desktop PrintMonitor does new printing magic

When Apple recently released a "final candidate" version of LaserWriter 8.3 with a new PrintMonitor utility included, the company followed an unusual distribution procedure. The file appeared only on eWorld, not on Apple's Internet servers nor on the more expensive AppleLink service. If you have an eWorld account, you can get the software in the Tool Chest area of the Developer Services section. It should reach the other on-line services after final testing and tweaking.

The Apple LocalTalk Bridge is a full version of the free LaserWriter Bridge.

This latest LaserWriter adds support for ColorSync 2.0 and PostScript Color Matching in the printing dialogs plus a new, faster printing process for QuickTime JPEG images.

The most striking feature of the package, however, is Desktop PrintMonitor, a replacement for the clunky, old PrintMonitor utility that has long annoyed users with its memory-management and user-interface problems. The new version introduces desktop printer icons like those of QuickDraw GX but requires far less memory. In fact, it seems to use less RAM than the old PrintMonitor.

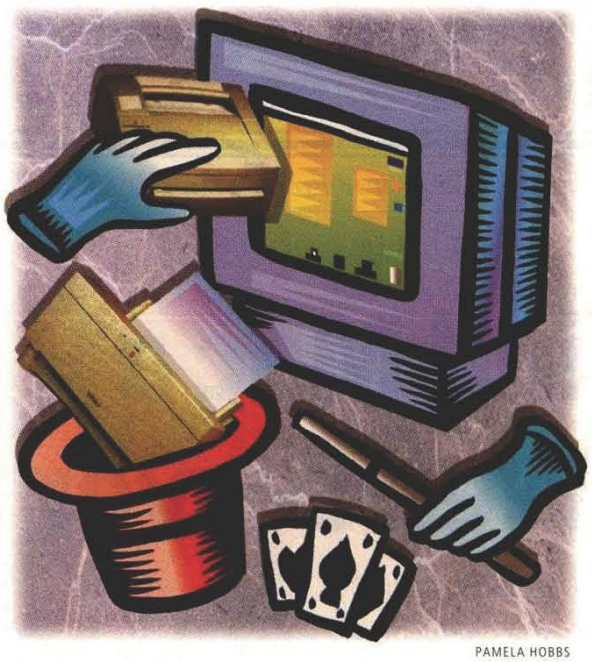
A desktop printer is created when you choose a printer and close the Chooser. An icon with the printer's name appears on the desktop, and you can drag files onto it to print them. Selecting the printer icon adds a Printing menu to the Finder's menu bar. You can open the desktop printer to see the print queue, listing the status of print jobs.

When there are multiple desktop printers, created by choosing first one printer then another in the Chooser, you can drag print jobs from one queue to another. It is also easy to start and stop a printer or a single print job. You can even drag an unprinted job out onto the desktop and then drag it back onto a printer later.

Sleight of hand

A Desktop PrintMonitor extension, together with the Finder, performs some strange magic on the desktop to conjure up the desktop printer images, distorting the Mac's normal model of files and folders, much as Apple Photo Access does with Photo CD images. Desktop printers actually consist of invisible folders and files stored inside the Finder's invisible desktop folder. You can see these objects with a disk utility, such as PrairieSoft Inc.'s DiskTop 4.5.2, but they don't look or act like folders on the desktop.

This may be a little disconcerting to veteran Mac users, but the Trash is also a special kind of desktop folder object, and the new printers do offer a big interface improvement over the old approach, despite their tricks. (Hopefully, Copland will bring a more consistent, extensible architecture to the whole Mac desktop.)



PAMELA HOBBS

I had no trouble using Desktop PrintMonitor with LaserWriter 8.2.2, and it should also work with other drivers that are compatible with LaserWriter 8 if there are any problems with LaserWriter 8.3 itself. Be sure to read the documentation files included with the new software, though; there are quite a few little compatibility issues to consider.

Linking LANs

Network Software Installer 1.5.1 goes hand-in-hand with printer drivers, providing the networking services they need. According to the documentation, this new version fixes some installation problems, such as losing the graphical icons for the Finder, System and Mac Clipboard files, and fixes crashes on Power Macs when Ethernet is disconnected.

The new release, which is available from standard Apple on-line channels, updates LaserWriter Bridge to Version 2.0.1. This LaserWriter Bridge apparently works only with this version of NSI.

LaserWriter Bridge is a helpful utility for upgrading a Mac network to Ethernet (or token-ring) while continuing to support LocalTalk-only printers. It has a few limitations, however. Macs on the LocalTalk segment cannot do file sharing among themselves, and they cannot use printers outside their own network segment.

The $99 Apple LocalTalk Bridge is a full-featured version of the free LaserWriter Bridge. This bridge handles the entire range of AppleTalk network services, not just printing protocols.

Astec Co. Inc. recently ran some performance tests on the full bridge and passed along the results, which were quite good. Transferring files over the Apple LocalTalk Bridge between LocalTalk and Ethernet was as fast as transferring files directly across LocalTalk. Printing was similarly quick, and the bridge host computers suffered no slowdowns from their extra workload. □

Comments on MacInTouch are welcome at 7 Parmenter Ave., Maynard, Mass. 01754. Phone (508) 897-2621. Please address e-mail to 72511,44 on CompuServe or ricford@macintouch.com on the Internet. The MacInTouch home page is at http://www.macintouch.com/~ricford/.

SOLUTIONS

From previous page

rather not bother managing the site, they can also rent space on another server and put up their pages on a service provider's system, sometimes for as little as $1 per megabyte.

Putting up pages on someone else's server means relinquishing control. The Advize Group, however, offers its clients capabilities such as data capture, which proves useful in direct-response solicitations, and e-mail, which is also built into NetWings, for guest lists and customer feedback.

Dynamic pages

Providing features for customer interaction through database and e-mail services often differentiates run-of-the-mill, read-about-me Web pages from those capable of attracting repeat visitors and potential customers, which translates into sales.

"If you are a company that provides tools that allow merchants to put up their catalogs of information on the Net, you also must have an ordering mechanism; you've got to have customer-support modules," said Chet Grycz, education consultant for The Well, a Sausalito, Calif.-based Internet service provider.

NetWings gives Web publishers the ability to create such features through 4th Dimension. Web publishers using WebStar can enhance their pages through CGI scripts that allow them to capture data in a Claris FileMaker database, for example. StarNine bundles a FileMaker CGI with WebStar, and CGIs exist for use with Butler and dtF databases. In July, StarNine plans to release Commerce and Security tool kits that will enable companies to accept on-line payments for products and services offered on the Web. NetWings reportedly will support third-party CGIs for functions that it does not implement.

Bickford said he believes that add-on and plug-in components, such as database and e-mail CGIs "that get the end user away from having to do the stuff themselves but gives them the capabilities for doing quality Web sites" represent a growing market for third-party vendors.

NetCloak and NetForms from Maxum Development Corp. of Streamwood, Ill., are two of the most popular CGIs for WebStar and MacHTTP servers.

NetCloak can be used to provide time and date stamps, random page changes, information about the number of times a page has been accessed, and other dynamic features to keep Internet surfers coming back for more. "With these two [CGIs], you can do 90 percent of what I've had people ask me to do with CGIs," said Wiederspan. "They're incredibly powerful."

Wiederspan also uses the MapServe freeware CGI (http://www.spub.ksu.edu/other/machttp_tools/mapserve) to create clickable maps that help users visually navigate links. NetWings includes its own clickable map server; a third-party image map processor is not needed. And although various freeware e-mail CGIs are available for WebStar sites, users should expect StarNine to provide close ties with its mail offerings.

Quasar Knowledge Systems Inc.'s forthcoming Internet publishing system will include Web, e-mail, and news servers. Users will be able to take advantage of Smalltalk Agents' multithreading capabilities and components-based architecture to create their own add-ons for document management, calendaring and scheduling.

But whether the server software vendor or the third parties supply the additional feature sets that make for interactive Web pages, the cost of producing dynamic Web sites will grow, even as connection costs drop, according to Mac Webmasters' Bickford. "Most people are just experimenting right now," he said.

According to Wiederspan, "Maintaining good pages is time-intensive, especially if you're bringing together data." □

PRODUCT INFO

NETWINGS INC.
NetWings: $1,500
Fremont, Calif.
(510) 656-1962; fax (510) 656-9680;
http://netwings.com

QUASAR KNOWLEDGE SYSTEMS INC.
Bethesda, Md.
Your First Internet Publisher: $195
(301) 530-4853 or (800) 296-1339;
fax (301) 530-5712; info@qks.com or
http://www.qks.com

STARNINE TECHNOLOGIES INC.
WebStar: corporate edition, $349 (through July 31), regularly $795; education edition, $169 (through July 31), regularly $295
Berkeley, Calif.
(510) 649-4949; fax (510) 548-0393;
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Tracking Stanford isotopes

By Richard Rawles

Stanford turned to Macs running 4D to keep tabs on radioactive materials.

Surrounded by Geiger counters, Jim Barrick works quietly at his Power Macintosh 8100, occasionally sipping a Diet Coke, never taking his eyes off the 4th Dimension database that tracks the use of radioactive materials for medical purposes and physics experiments at Stanford University in California.

With the system, Barrick can find out who owns a particular Geiger counter in less time than it takes to read this paragraph. He can also determine if the owner has completed training in handling radioactive materials or whether the counter is due for its yearly calibration.

Barrick is a programmer/analyst in the Health Physics section of Stanford's Environmental Health and Safety department. He traces shipments of radioactive materials and their movement in and around the Stanford campus, including the Stanford Medical Center, the Palo Alto Veterans Administration hospital and various physics labs. Collectively these facilities receive 40 to 50 packages per day containing vials of radioactive substances. Until two years ago, this process was a heavy-handed, time-wasting adventure in inefficiency.

Barrick and Health Physics personnel must perform many routine tasks each day, such as logging in packages delivered by United Parcel Service and other carriers. Every transfer of radioactive isotopes — from the relatively harmless tritium to the more dangerous radioactive iodine — must be meticulously recorded, from arrival to disposal.

Mac apps to the rescue

In 1993, the Health Physics section switched to the Mac from a 68000-based 100L computer from Alpha Microsystems Inc. of Santa Ana, Calif. The file-cabinet-size 100L housed a single flat-file database connected to a group of dumb terminals. Not being a relational database, it lacked sophisticated querying capabilities. Users could not access information in a timely manner or obtain data other than in a canned report.

The solution was installing ACI US Inc.'s 4th Dimension as a client on mostly Mac LC II machines connected to a Sybase database server running on an IBM Corp. RS-6000 three miles away.

Paul Carnine, a programmer with networking and database consultants The Automation Group in Oakland, Calif., designed the database, using Macs for much of the processing and ensuring that up-to-the-minute data would be available in the event of an emergency. Every time a user logs on or modifies a table on the RS-6000 server, the remote Sybase database refreshes the local 4D client, which also updates the remote server. "I can find most of the data if something should happen" by accessing just one Mac, Barrick said. He carries a hard disk home as a precaution.

Implementation of the system

The new system relies on 4D and the Sybase database to produce reports on a quarterly, semiannual and annual basis to meet both university requirements and government regulations. The system was designed around the university's stipulation that each of 307 controlled radiation authorization (CRA) projects must be annually certified for renewal. The database populates an RTF file with the names, amounts and levels of isotopes used by the project and the names of those responsible. The file can then be opened and edited in Microsoft Word.

Because of all the variables, Carnine designed the system to be incredibly flexible. At any one time, 20 to 25 users can access information, issuing ad hoc queries. Although employees found the system more difficult to use than its predecessor, "Once they understood how the relationships worked, they were doing things I never expected to be done with the system," Carnine said.

For example, the system first searches the list of isotopes to find out which of the CRAs use iodine and then matches that index against a roster of people associated with the various CRAs. With this information, a health physicist can guarantee that every person who could come in contact with the isotope had received proper training.

Because of the system's flexibility, users can pick and choose what data they want to access without cluttering their interface with lists of infrequently used information.

Nuclear troubleshooting

Several universities have come under sharp criticism lately for lax handling of nuclear materials. Recently released information from the federal Nuclear Regulatory Commission indicates that Harvard University in Cambridge, Mass., and Boston University, for instance, have exhibited "cavalier" attitudes toward handling nuclear materials on campuses, according to an Associated Press story by John Marcus.

Not so at Stanford. The regional NRC office located in Walnut Creek, Calif., gives Stanford a clean bill of health. The results of a state inspection were not available at press time.

The database has now been optimized for use in a nonroutine event, such as a major emergency in which the campus network is down and the location of vials must be determined to guarantee safety of emergency-response staff.

Switching to a Mac-based system has helped assure that Stanford remains certified to handle nuclear materials. Millions of dollars in research funds are at stake. "One of the things that pulling data from the 100L and putting it into the new system showed us was how poor the data in a flat-file system can get over time," Carnine said.

As an additional benefit, the system cut paperwork by two-thirds. Doctors, scientists, professors and students turn in one copy of each form, which is then entered into the system by Health Physics staff. Most importantly, the information is there when it's needed. □

Stanford University

STANFORD, CALIF.

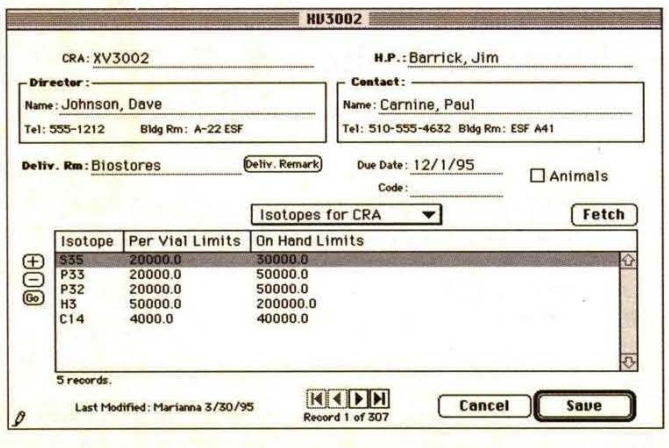
PROBLEM: Tracking radioactive materials with a flat-file database resulted in duplicate information and slow response time.

SOLUTION: 4th Dimension client on Macs accessing a Sybase database.

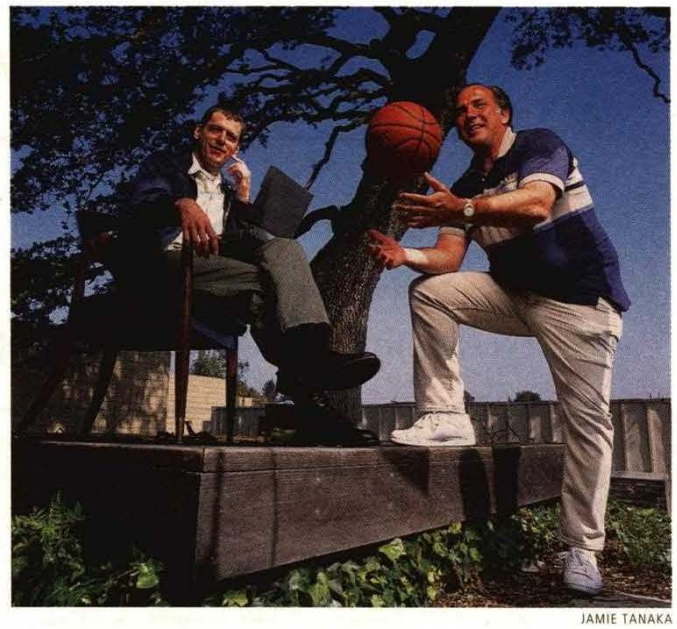
RESULTS: Greater accuracy in record keeping and the ability to respond faster to state and federal inspectors. Improved communication among Health Physics personnel.

COSTS: Hardware, $100,000; software, $150,000.

BENEFITS: Greater compliance with state and federal regulations. Noncompliance can result in loss of license and millions of dollars in research funds.



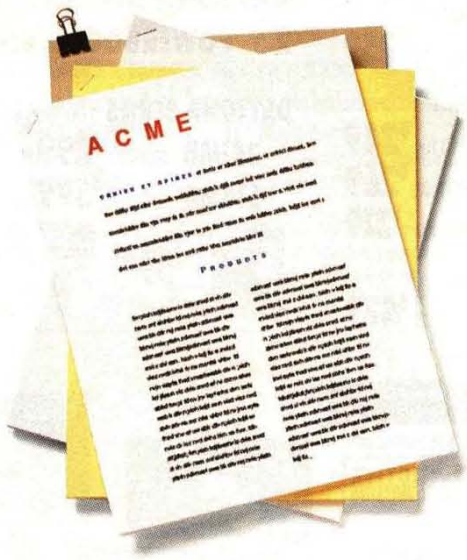
The 4th Dimension database shows where radioactive materials are and who is responsible for them.



JAMIE TANAKA

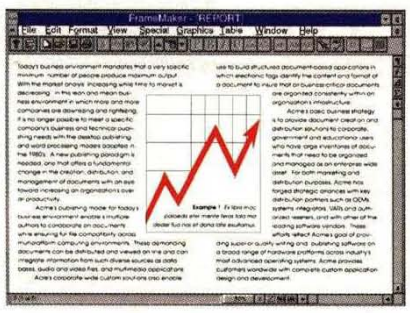
Paul Carnine (left) of Oakland's The Automation Group and Jim Barrick, programmer at Stanford's Environmental Health and Safety department, said tight teamwork has helped them develop a reliable system for storing and tracking critical data.

A YEAR IN THE LIFE OF A FRAMEMAKER DOCUMENT.

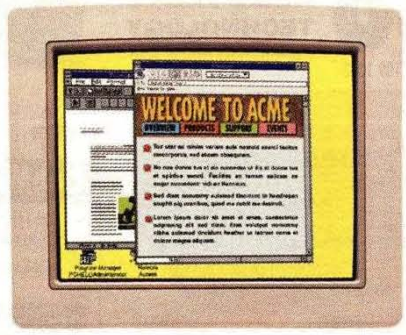


JAN 14 *Acme Development Company's marketing department worked as a team to create its first marketing plan. Everyone contributed, each using FrameMaker's text, graphics, layout, formatting, and long document features. The end result was the best marketing plan in Acme history.*

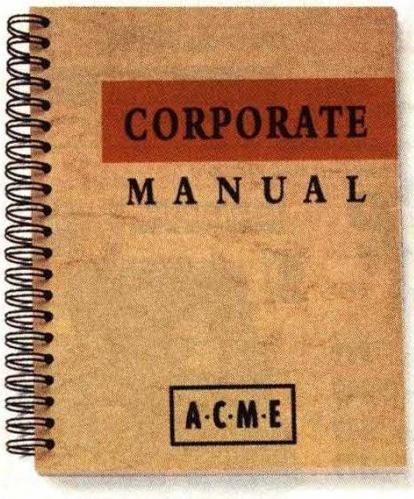
SEP 27 *Oops! Fido just made a meal out of some essential drawings. Fortunately, FrameMaker can import directly from the architect's workstation, since it supports popular CAD, graphic, and word processing file formats. It even runs on platforms like Macintosh, UNIX, and Windows.*



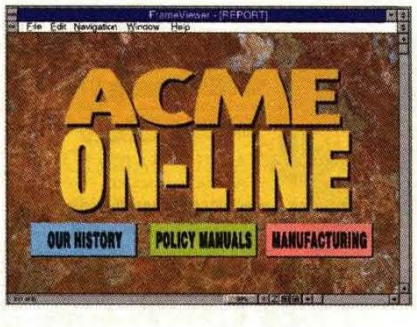
MAR 28 *Business was booming, so Acme included its skyrocketing sales figures in the marketing plan. FrameMaker imported a variety of graphics, and flowed text neatly around them with the help of the new auto text wrap feature. It even has unsurpassed table editing for multipage tables.*



DEC 3 *Soon Acme had its very own Web site to help disseminate company information to employees and customers all over the world. So naturally, Acme made extensive use of FrameMaker's new HTML export capabilities. Now all its material could be published directly to the Internet.*



MAY 10 *Acme hit the bigtime and went public, becoming Acme Corporation. To make sure all the IPO documentation was consistent, FrameMaker's import text and graphics by reference feature was used extensively for retrieval and update of boilerplate information created in FrameMaker or other applications.*



JUL 1 *Suddenly Acme had a need to communicate online–to save time, paper, and even a few trees. So they used FrameViewer™ for instant online distribution with no additional post-processing or conversion required. It even supports FrameMaker's automatically generated hypertext links.*

INTRODUCING NEW FRAMEMAKER RELEASE 5.

Why is it that your most critical documents are in a constant state of flux? They get revised, reorganized, and redistributed, over and over again. It's as if they've taken on a life of their own. • They're what we call living documents, and they're what FrameMaker® does best. FrameMaker literally automates and manages the entire document publishing process — word processing, page layout, organization, and distribution. For publication on paper, on screen, or even onto the Internet, FrameMaker does it all. • Haven't you and your documents lived long enough without FrameMaker? Call *1-800-U4-FRAME Ext. 643* today for our free demo disk* and get a feel for how FrameMaker works. Then cruise by our web site at http://www.frame.com. And make FrameMaker an integral part of the life cycle of your documents.

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Quantum

Incredibly Low Price **$1149**

GRAND PRIX 4.3GB INTERNAL 7200 RPM

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GRAND PRIX 3.5" HIGH CAPACITY DRIVES

Capacity	Access Time	Part No.	Internal	Part No.	External
4300MB	8.6ms	C109 1159	$1149	C109 1108	$1209

$419

FIREBALL 1080

ClubMac NEW PRODUCT

3.5" LOW PROFILE DRIVES

Capacity	Part No.	Internal	Part No.	External
EMPIRE SERIES 9.5ms access time				
2100MB	C109 1158	$869	C109 1107	$929
CAPELLA SERIES 8.5ms access time				
2200MB	C109 1213	$899	C109 1212	$959
MAVERICK SERIES 14ms access time				
540MB	C109 1151	$199	C109 1101	$259
LIGHTNING SERIES 11ms access time				
365MB	C109 1155	$189	C109 1104	$249
540MB	C109 1150	$209	C109 1100	$269
730MB	C109 1154	$259	C109 1102	$319
FIREBALL SERIES 12ms access time				
1080MB	C109 1202	$419	C109 1105	$479

All Quantum Drives carry a 30-Day Money Back Guarantee. Quantum Maverick, Lightning, Empire, and Atlas series include a TWO Year Warranty. Quantum Daytona series include a ONE Year Warranty.

$399

DAYTONA 514 INTERNAL

2.5" POWERBOOK DRIVES

Capacity	Part No.	Internal	Part No.	External
DAYTONA SERIES 17ms access time				
341MB	Q030 1041	$299	C109 1119	$419
514MB	Q030 1002	$399	C109 1109	$519

$59.95* C089 1009 300D

LIMITED TIME OFFER

* Get ClarisWorks 3.0 with any external drive for an additional $59.95

ClubMac 5.25" 200MB Removable

NEW! Read, Write and FORMAT Compatible with 200MB, 88MB, and 44MB Cartridges.

FEATURING SyQuest® REMOVABLE TECHNOLOGY

$468 C109 1003

INCLUDES FREE CARTRIDGE

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MacUser ★★★★ February 1995

C109 1003	5.25" ClubMac 200MB	includes FREE Formatted 200MB Cartridge	External $468
C109 1002	5.25" ClubMac 88MB	includes FREE Formatted 88MB Cartridge	$349

All SyQuest drives include SCSI Director formatting software, ONE FREE Formatted Cartridge, necessary cables for "plug-and-play" and documentation. All SyQuest drives include a 30-Day Money Back Guarantee and TWO Year Warranty. All SyQuest cartridges include a FIVE Year Warranty (warranty after the first year is handled by SyQuest).

ClubMac 3.5" 270MB Removable

- Fast 13.5ms average seek time
- 3,600 RPM rotational speed
- Data transfer rate up to 4MB/sec (sync)
- SCSI-2 interface
- Backward compatible with 105MB cartridges
- 100,000 hours MTBF

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- SCSI-2 interface
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- 100,000 hours MTBF

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$259 C109 1005

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SyQuest 5 YEAR Warranty* ON CARTRIDGES

GENUINE SYQUEST CARTRIDGES

Part Number	Media	Qty 1	Qty 10	Qty 20
S198 1010	44MB	$43.00	$42.00	$41.00
S198 1011	88MB	$48.00	$47.00	$46.00
S198 1012	200MB	$76.00	$74.00	$72.00
S198 1013	105MB	$55.00	$53.00	$51.00
S198 1014	270MB	$62.00	$61.00	$60.00

* Warranty after first year, handled by SyQuest.

NEC

NEC MultiSpin 2V

$199 N024 1008

2X Speed

- Power Tray
- 320ms access time
- 300KB/sec transfer rate
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NEC MultiSpin 6Xe $559

NEW PRODUCT N024 1062

6X Speed

- Blazing 900 KB/sec
- 150ms access time
- Removable disc cartridge included
- Two Year Limited Warranty

N024 1062	NEC MultiSpin 6Xe	$559
N024 1011	NEC MultiSpin 3Xp	$379
N024 1008	NEC MultiSpin 2V Mac	$199

Seagate

Unformatted Capacity	Model	Description	Part No.	Internal	Part No.	External
3.5" Half Height & Low Profile (LP)						
2.4GB	32430N	Hawk 2 LP	C109 2211	$939	C109 2112	$999
4.3GB	15230N	Hawk 4	C109 2212	$1189	C109 2113	$1249
2.5GB	32550N	Barracuda 2 LP	C109 2203	$1089	C109 2109	$1149
4.3GB	15150N	Barracuda 4	C109 2207	$1519	C109 2106	$1579
5.25" Full Height						
9.1GB	410800N	Elite-9			C109 2110	$2799

4.3GB BARRACUDA 4 $1579

8.5ms average seek time
7,200 RPM rotational speed

Seagate 5 YEAR Warranty

EXTERNAL

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ClubMac 4X CD-ROM

- 600KB/sec data transfer rate
- 190ms average access time
- Caddy-less design
- LED light, headphone jack and RCA jacks
- ClarisMac's CD AutoCache driver software
- ONE Year Warranty

$249 C109 9546

ClubMac 2X CD-ROM

- 300KB/sec data transfer rate
- 320ms average access time
- Caddy-less design
- LED light, headphone jack and RCA jacks
- ClarisMac's CD AutoCache driver software
- ONE Year Warranty

$159 C109 9543

CLUBMAC CD-ROM BUNDLE $100* C109 1015

*with any CD-ROM Drive purchase

- Grolier 1995 Multimedia Encyclopedia
- U.S. Atlas & World Atlas
- San Diego Zoo Animals
- Wyatt Earp
- QuickShot speakers & Koss Headphones (5 Titles/4 CDs)

ClubMac Tape Backup Drives

The ClubMac 2.0GB DAT drive features 20sec average data access time, up to 266KB/sec data transfer rate, SCSI-1/SCSI-2 interface and 60,000 hrs MTBF.

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BUNDLED WITH Retrospect v2.1 Backup Software

$729

C109 5011	ClubMac 2.0GB DAT	$729
C109 5010	ClubMac 4-8GB DAT/DDS-2	$949

ClubMac DAT drives includes a 30-Day Money Back Guarantee, TWO Year Warranty, RetroSpect v2.1 Backup Software, ONE 90m DAT tape (ClubMac 4-8GB DAT drive includes ONE 120m DAT tape), 25/50 pin SCSI cable and power cord for external drives, user's guide, and Switchable Active Termination.

ClubMac Optical Drives

ClubMac 5.25" OLYMPUS 1.3GB

- 29ms ave. seek time
- 3,500 RPM rotational speed

$1499 C109 5022

NOW SHIPPING WITH ACTIVE TERMINATION

CLUBMAC 3.5" OLYMPUS 230MB

- 28ms ave. seek time
- 4,200 RPM rotational speed

MacUser ★★★★ February 1995 **$579** C109 9352

ClubMac drives are preformatted and thoroughly tested. ClubMac Optical drives include a 30 Day Money Back Guarantee, ONE Year Warranty, a FREE formatted optical disk, SCSI Director Formatting Software, pre-loaded Apple system software, 25/50 pin SCSI cable and power cord for external drives, user's guide, and Switchable Active Termination.

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- Manage information, stay in touch with people, and exchange data with your computer
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- Built-in applications that include a notepad, to-do list, datebook, and name file
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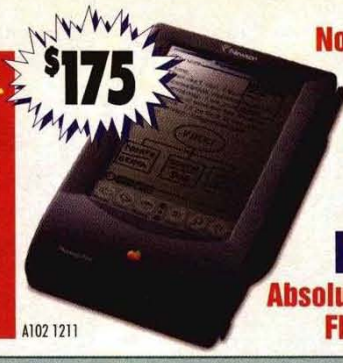

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Large Screen performance at an affordable price

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- 17" diagonal flat square technology
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- Mac Res: 1024 x 768 NI
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14" MultiSync XV14 (N026 1016) $319
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15" MultiSync XE15 (N026 1006) / XP15 (N026 1005) ..... $549 / 599
17" MultiSync XV17 (N026 1022) / XP17 (N026 1009) ..... $759 / 1049
21" MultiSync XE21 (N026 1010) / XP21 (N026 1011) ..... $1829 / 2129

IntelliColor Display/20e
The Radius IntelliColor Display/20e is part of the next generation in professional two-page color displays. It delivers unrivaled command of your desktop, from on-the-fly resolution switching to state-of-the-art color temperature control. Combined with Radius' IntelliColor software, it allows you to emulate 3 lighting conditions and user-adjustable color temperature, so you get more accurate color representation.

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R016 1013 **PressView 21T Display System** (PV2102) 21" Trinitron, 640 x 480 to 1600 x 1200 ..... $3129
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R016 1009 **IntelliColor Display/20e** (0461) 20" Trinitron, 640 x 480 to 1600 x 1200 ..... $1979
R016 1007 **PrecisionColor Display/17** (0460) 17" Trinitron, 640 x 480 to 1600 x 1200 ..... $925
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VideoVision Studio 2.0
With JPEG hardware compression and decompression for full-screen, full-motion recording and playback from a hard disk, VideoVision Studio combines the power and flexibility of the Macintosh with the ease and transportability of video tape.

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PowerMac 8100 Compatible !!

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Super Resolution at Earth-Shaking Speed.

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Thunder Series Cards
Blow the doors off Power Mac

Three Thunder IV GX cards extend the 24-bit resolution of the PowerMac's built-in-video. Accelerated 24-bit color, built-in Photoshop acceleration, CMYK acceleration, hot-key resolution switching, pan and zoom, color composer and 10-bit DAC add up to make these cards the number one choice for image processing, compositing and illustration.

FREE* ColorComposer software — Adobe charged

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R013 1061 **Thunder IV GX•1152** (0485) 24-bit support 1152 x 870 ..... $1899
R013 1062 **Thunder/24 GT** (0491) 24-bit support to 1152 x 870, PhotoEngine optional $1329
R013 1010 **PrecisionColor Pro 24XK** (0430) 24-bit color, 1024 x 768, 16" and larger displays $749
R013 1008 **PrecisionColor Pro 24X** (0429) 24-bit color, 640 x 480 to 1152 x 870, 13" to 21" displays $1039

*Modify your image display without affecting the image file. For a limited time, FREE ColorComposer software is included with each Thunder Series card. Adjust what you see on your monitor to more closely match the output of your printer.

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BEST BUY

NEC Silentwriter Model 640
- 6ppm Print Speed
- 300 dpi print resolution
- 35 True Type fonts
- 3MB RAM standard
- AppleTalk Interface
- Adobe PostScript Level 2 interpreter
- Limited TWO-Year Overnight Replacement Warranty (N027 1001)

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Stylus COLOR Inkjet Printer E047 1012

Now you can print in vivid color with clarity never before possible in a personal color printer. At 360 dpi resolution blacks are blacker and at 720/360 dpi the color output is the sharpest available.
- Incredible 720 dpi color printing, optimized with special coated paper
- 360 dpi black print resolution
- Prints up to 16 million colors
- Serial interface
- Includes Mac driver software and a TWO Year Warranty

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MACWORLD MW ★★★★

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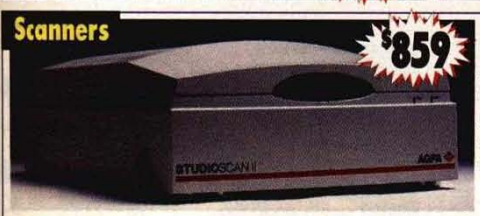

$859

AGFA StudioScan II
Agfa's StudioScan II, with its speed, flexibility, high-resolution capabilities, color accuracy, and OCR and other bundled software, brings productivity and image quality to novice and desktop users. While maintaining simplicity of operation, StudioScan II features productivity and output quality for demanding environments and applications.

AGFA

A055 1005 **AGFA StudioScan II** $859
A055 1004 **AGFA StudioScan** $679
A055 1007 **Agfa Transparancy Unit II** $379
A055 1003 **Agfa Transparancy Unit** $379

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Epson ES-1200 Pro Mac Scanning System

HIGH DETAIL 4800 DPI, 30-BIT COLOR SCANNING MADE AFFORDABLE.
- 600 x 1200 dpi scanning resolution (up to 4800 dpi via interpolation)
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- Scans over ONE BILLION colors
- 8.5" x 11.67" scanning area
- Built-in image processing features
- Increased image quality with 30-bit color scanning

2 YEAR WARRANTY

MACWORLD EDITORS' CHOICE AWARD 1994 WINNER

$1269

E045 1003 **Epson ES-1200C Pro-MAC** $1269
E045 1004 **Transparency Unit** $655
E045 1008 **Automatic Document Feeder** $465

$359

PaperPort. VISIONEER
The fastest way to get paper into your Mac.

If it's on paper, it's PaperPort-able!

The first truly simple, super-small input device that converts your paper documents into electronic ones. With PaperPort's direct links to word processors, OCR software (included!), printers and fax modems, you can file, edit, annotate, print and send your documents directly to others. (V025 1002)

MACWORLD EDITORS' CHOICE AWARD 1994 FINALIST

MACWORLD MW ★★★★★

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GLOBAL VILLAGE COMMUNICATION

$229

G050 1016

Global Village TelePort Platinum
The Teleport Platinum fax/modem makes it easy to achieve the highest possible performance for both data and fax communication. You'll save time and money when you use it to send and receive faxes, access your office network from home, transfer files, and connect to on-line services

G050 1016 **Global Village TelePort Platinum** $229
G050 1006 **Global Village TelePort Gold II** $139
G050 1017 **Global Village PowerPort Platinum PB IXX** $325
G050 1003 **Global Village PowerPort Mercury PB IXX** $325

SupraFAXModem

28.8 MC v.34

$225

S140 1006 **Supra Express 14.4 Plus** $99
S140 1007 **SupraFAXModem 28.8 MC V. 34** $225
S140 1008 **SupraFAXModem 28.8 PB** V.Fast Class for PowerBooks $299

Supra Modems include a FIVE Year Warranty.

Graphic Cards — The Inexpensive Alternative for High-End Color Displays

EA REASEARCH

EAsycolor 24
The EAsycolor 24 graphics accelerator offers an unsurpassed combination of performance and price to creative professionals. In addition to 24-bit resolution up to 1600 x 1200, the EAsycolor 24 also offers Adobe Photoshop, CMYK-RGB, and QuickDraw Acceleration. Ideal for PowerMac owners, the EAsycolor 24 features state of the art RISC technology, up to 8MB VRAM, a 30 day money-back guarantee and a lifetime warranty at a very competitive price.

$1299

E103 1001 **EAsycolor 24 1152 Graphics Card** (EC1152) $1299
E103 1002 **EAsycolor 24 1360 Graphics Card** (EC1360) $1699
E103 1003 **EAsycolor 24 1600 Graphics Card** (EC1600) $2299

RASTEROPS® CORPORATION

PaintBoard Prism GT bundled with Painter 3.0

Prism delivers top performance – real-world performance – for the way that people really work. Prism provides a balance of price, performance and functionality that are unmatched
- Accelerated 24-bit color at resolutions up to 1152 x 870
- Seven-inch size compatibility with compact and full-size NuBus Macintosh and Power Macintosh computers
- Support for displays up to 21 inches
- High refresh rates for flicker-free images
- Hardware-based 2X, 4X and 8X zoom and pan

NEW PRODUCT

R053 1029 **PaintBoard Prism GT bundled with Painter 3.0** $959
R053 1028 **PaintBoard Prism** $659

Acceleration

IN STOCK!

$1489*

DAYSTAR DIGITAL

100 MHz Turbo 601

100MHz

Compatible with Mac IIci, IIsi, IIvx, and Performa 600

The Turbo 601 provides the best of both worlds. The Turbo 601 allows you to run your current software up to twice as fast, and it lets your run powerPC accellerated applications at full PowerPC speed - from 7 to 11 times faster!

DayStar 100 MHz Turbo 601 ..... $1489*
Compatible with Mac IIci (D040 1048), IIsi (D040 1050), IIvx/vi/Performa 600 (D040 1052)
DayStar 100 MHz PowerPro 601 (D040 1043) $1489*
Compatible with Quadra 900/950, 700 and other with Quadra style PDS
DayStar 66 MHz Turbo 601 ..... $989
Compatible with Mac IIci (D040 1039), IIsi (D040 1049), IIvx/vi/Performa 600 (D040 1051)
DayStar 66 MHz PowerCard 601 (D040 1040) $635
DayStar Turbo '040 (D040 1018) $769

* After $200 Mail-in rebate from DayStar Digital.

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Mac Con LC-10T III
(A120 1026)
Mac Con LC-10T III is a great low cost 10BaseT solution for LCs, Quadra 605s, 630s and many Performa models

$59

SPECIAL BUY! Limited Quantities Available

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A120 1026 **10BaseT, FPU socket** (MacLC-10TIII) $59
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A120 1032 **Micro Asanté Print, 10BT** (AP10T) $285
A120 1033 **Micro Asanté Print, Thk/Thn/10BT** (AP3) $309
A120 1010 **10BaseT FriendlyNet Media Adapter** (FN10TA) $39.99
A120 1025 **Mac II/Perf 600, NuBus, Thk/Thn** (MCNB-TN) $115
A120 1023 **Mac II/Perf 600, NuBus, Thk/10BT** (MCNB-10T) $109
A120 1022 **Mac LC/Q6xx/Clr Classic, Thn, FPU** (MCLC-TN) $109
A120 1037 **Mac LC/Q6xx/Clr Classic, 10BT, FPU** (MCLC-10T) $89

WARRANTIES: All items manufactured by ClubMac are returned to ClubMac for warranty repair. All other items carry manufacturer's warranty. MONEY BACK GUARANTEE: All products manufactured by ClubMac carry a 30 day money back guarantee. ClubMac extends all other manufacturers' return policies to its customers. Non-ClubMac products carry 30 day money back guarantee when specified. RETURNS: Call for RMA number! Any product that is returned WITHOUT an RMA number will be refused. ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

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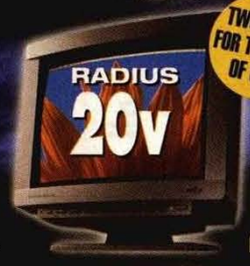

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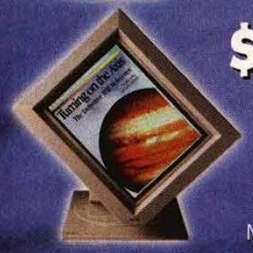

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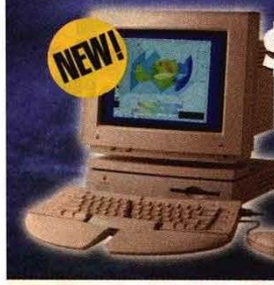

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240MB - 1200MB

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FUJITSU M2684S	530MB	3.5"	13MS	5400	$ 209	$ 269
NEC	730MB	3.5"	11MS	4090	$ 239	$ 299
CONNER CFP1080S	1.2GIG	3.5" LP	9MS	5400	$ 455	$ 515
Hitachi DK326c-10	1.0GIG	3.5"	9MS	6300	$ 585	$ 645
FUJITSU M1606S	1.2GIG	3.5" LP	10MS	5400	$ 555	$ 615

1.7GIG - 9GIG

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BRAND/MODEL	CAPACITY	SIZE	ACCESS	RPM	INTERNAL	EXTERNAL
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Conner CFP2105S	2.1GIG	3.5" LP	9MS	5400	$ 855	$ 915
Conner CFP2107S	2.1GIG	3.5" LP	8MS	7200	$ 955	$ 1015
Quantum XP32150S	2.2GIG	3.5" LP	8.6MS	7200	$ 935	$ 995
Seagate Barracuda 2	2.5GIG	3.5" LP	8MS	7200	$ 1055	$ 1115
Seagate Barracuda 2W	2.5GIG	3.5" LP	8MS	7200	$ 1139	$ 1199
Seagate Barracuda 4	4.1GIG	3.5"	8MS	7200	$ 1499	$ 1559
Seagate ST15230N	4.3GIG	3.5"	9MS	5400	$ 1155	$ 1215
Conner CFP4207S	4.2GIG	3.5"	9MS	7200	$ 1399	$ 1499
Conner CFP4207wide	4.2GIG	3.5"	9MS	7200	$ 1399	$ 1499
Quantum XP34280S	4.3GIG	3.5"	8.6MS	7200	$ 1395	$ 1465
Seagate Elite 9	9.0GIG	5.25"	11MS	5400	$ 2595	$ 2695

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- MacWorld Mar. '95

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230MB Optical	$ 29	90M Tape	$ 12
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105MB Syquest	$ 54	270MB Syquest	$ 61

Our top rated RAID Systems include an Atto accelerator card, Remus RAID software, and all cabling.

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1.3GB	Ricoh Turbo	$ 2175
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1.3-8GIG	Conner 4326 DDS-2	4MM	$ 1089	$ 1149
4.0GIG	Sony 5200 DDS-2	4MM	$ 939	$ 999
4.0-8GIG	Sony 5000 DDS-2	4MM	$ 939	$ 999
7.0-14GIG	Exabyte 8505XL	8MM	$ 2135	$ 2195
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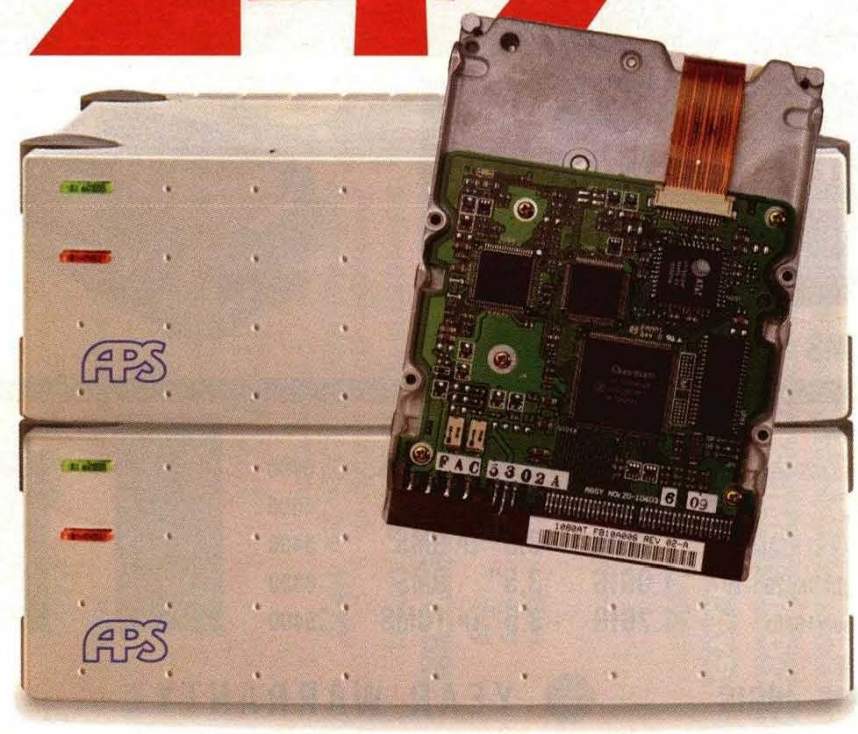

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APS Q 840[3] Quantum 840 Trailblazer mechanism	811MB	299.95	399.95
APS Q 1080[3] Quantum 1080 Fireball mechanism	1042MB	349.95	449.95
MacUser ZD LABS 4½ APS ST 1.0[5] Seagate ST 31230N Hawk mechanism	1010MB	549.95	649.95
APS Q 1.0[5] Quantum Atlas XP31070 mechanism	1025MB	699.95	799.95
MacUser ZD LABS 4½ APS MS 2.0[5] Micropolis 4221 mechanism	1955MB	999.95	1099.95
APS ST 2.0[5] Seagate ST 32550N Barracuda	2047MB	999.95	1099.95
APS Q 2.0[5] Quantum Atlas XP32150 mechanism	2050MB	999.95	1099.95
APS MS 2.0AV[5] Micropolis 4221AV mechanism	1955MB	1099.95	1199.95

4064-8669MB

Model	Capacity	Internal	SR2000
APS MS 4.0[5] Micropolis 3243 mechanism	4064MB	$1399.95	$1499.95
APS MS 4.0AV[5] Micropolis 3243AV mechanism	4064MB	1499.95	1599.95
MacUser ZD LABS 4½ APS ST 4.0[5] Seagate ST 15150N mechanism	4094MB	1499.95	1599.95
APS Q 4.0[5] Quantum Atlas XP34300 mechanism	4101MB	1499.95	1599.95
APS MS 9.0[5] Micropolis 1991 mechanism	8669MB	2299.95	*2499.95
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MacUser ZD LABS 4 APS ST 9.0[5] Seagate ST410800N mechanism	8669MB	2699.95	*2899.95

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Model	Capacity	Internal	**AC Only
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ARRAID M2/7200[5]	2GB	Mirrored (1)	2499.95
ARRAID S4/7200[5]	4GB	Striped (0)	2499.95
ARRAID S8/7200[5]	8GB	Striped (0)	3299.95

DATerm™ patent pending
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Internal drives for Quadra 800 and Centris 610 available
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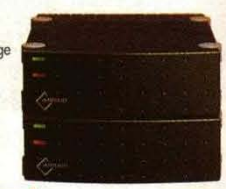

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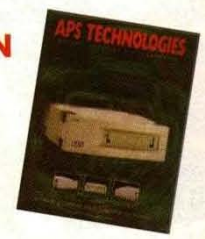

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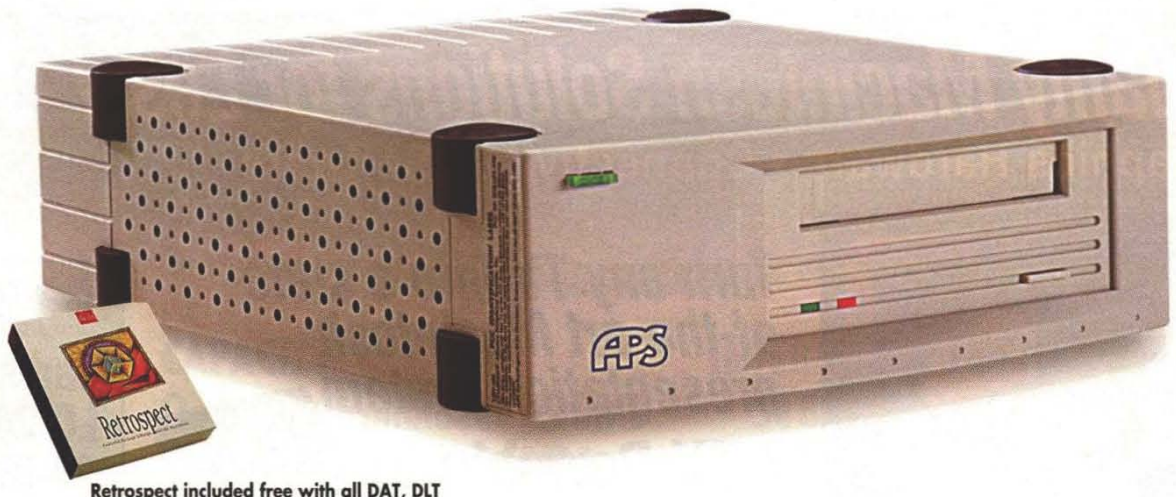

Retrospect included free with all DAT, DLT & HyperTape drives

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- ✓ Capacity up to 8GB*
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APS HyperDAT

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APS DLT40

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External configuration

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Model	Capacity*	Internal	External
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120-Meter (DDS-2)	19.95	18.95	17.95
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1-5 Denotes length of manufacturer's warranty in years
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SQ-310 (105MB)	59.95	58.95	56.95
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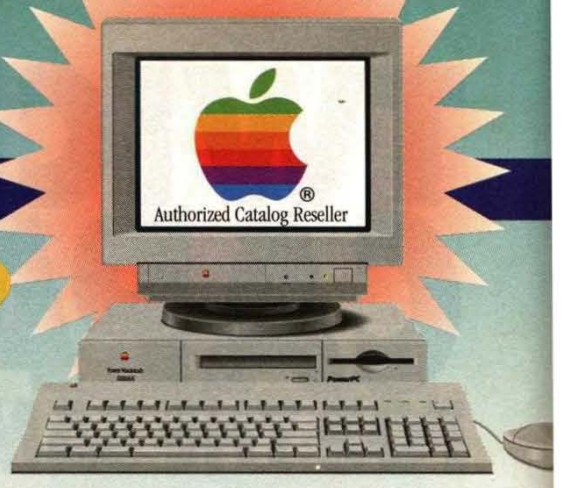

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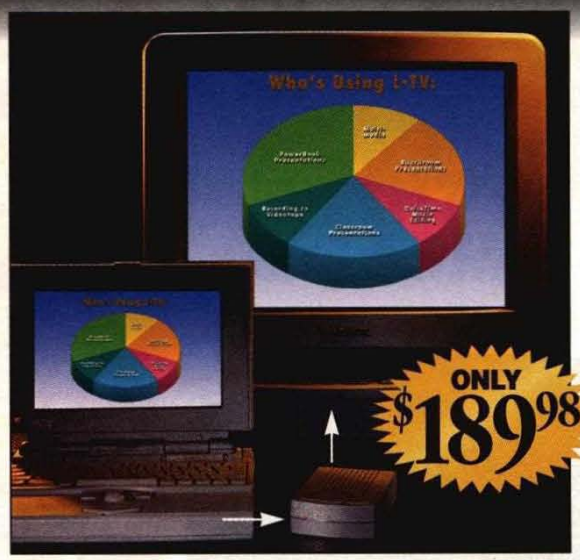

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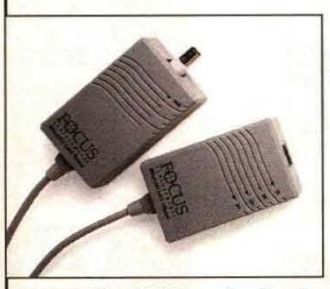

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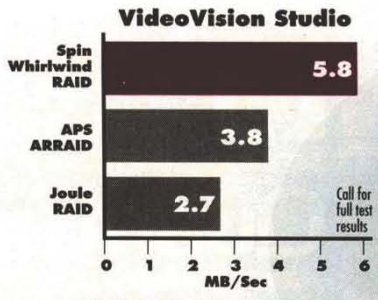

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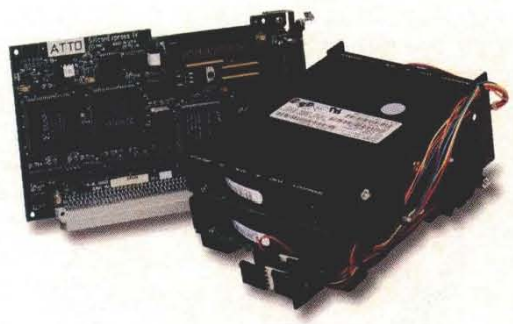

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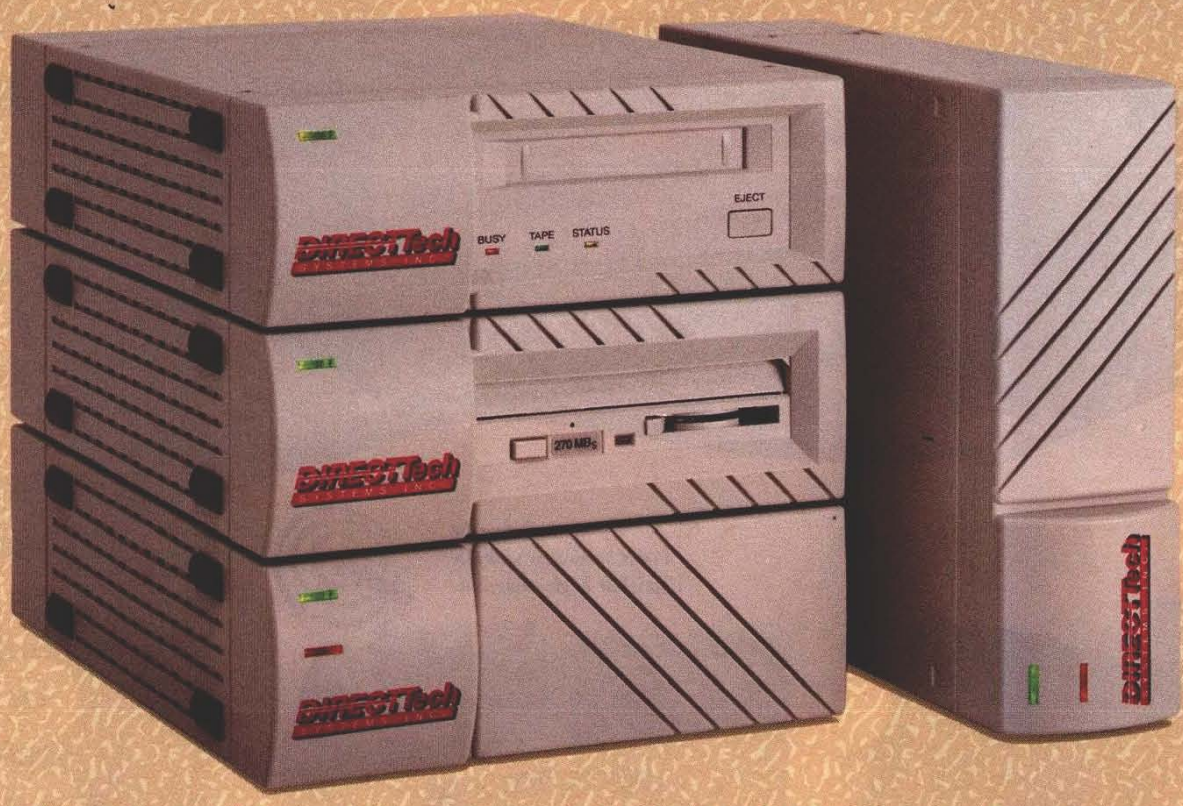

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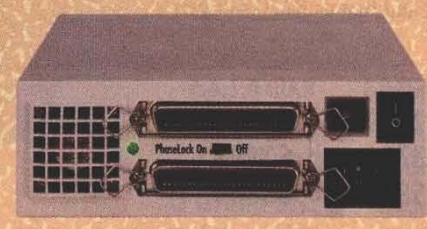

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540 MB	DT-540LT	Quantum	3.5"	11ms	4500	2 yrs	$235	$310
730 MB	DT-730LT	Quantum	3.5"	11 ms	4500	2 yrs	$275	$350
1.0 GB	DT-1080AL	Quantum	3.5"	9.5 ms	7200	5 yrs	$590	$665
1.05 GB	DT-31230	Seagate	3.5"	9.0 ms	5400	5 yrs	$515	$595
2.0 GB	DT-3221	Micropolis	3.5"	8.5 ms	7200	5 yrs	$950	$1,025
2.0 GB	DT-32150	Quantum	3.5"	8.0 ms	7200	5 yrs	$990	$1,065
2.0 GB	DT-2490	HP	3.5"	9.0 ms	6400	5 yrs	$1,100	$1,185
2.1 GB	DT-32550	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,050	$1,125
2.1 GB	DT-32550W	Seagate Barracuda Wide	3.5"	8.0 ms	7200	5 yrs	$1,199	$1,299
4.3 GB	DT-3243	Micropolis	3.5"	8.5 ms	7200	5 yrs	$1,395	$1,475
4.3 GB	DT-15150	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,499	$1,579
4.3 GB	DT-15150W	Seagate Barracuda Wide	3.5"	8.0 ms	7200	5 yrs	$1,599	$1,799
4.3 GB	DT-4280	Quantum	3.5"	8.0 ms	7200	5 yrs	$1,195	$1,275
9.0 GB	DT-1991	Micropolis	5.25"	12 ms	5400	5 yrs	$2,275	$2,375
9.0 GB	DT-410800	Seagate Elite 9	5.25"	11 ms	5400	5 yrs	$2,750	$2,850

AUDIO/VIDEO TUNED HARD DRIVES

Capacity	Model No.	Mechanism	Size	Seek	RPM	Warranty	Internal	PHAZER-I
1.05 GB	DT-31230AV	Seagate	3.5"	9 ms	5400	5 yrs	$565	$645
2.0 GB	DT-3221AV	Micropolis	3.5"	8.5 ms	7200	5 yrs	$1,000	$1,080
2.1 GB	DT-32550AV	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,100	$1,180
4.3 GB	DT-3243AV	Micropolis	3.5"	8.5 ms	7200	5 yrs	$1,395	$1475
4.3 GB	DT-15150AV	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,550	$1,630
9.0 GB	DT-1991AV	Micropolis	5.25"	12 ms	5400	5 yrs	$2,499	$2,599
9.0 GB	DT-410800AV	Seagate Elite 9	5.25"	11 ms	5400	5 yrs	$2,800	$2,900

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Capacity	Model No.	Internal	PHASER-I
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200 MB	SQ5200	$420	$480
270 MB	SQ3270	$420	$470

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4-8 GB	Sony-5000	DDS-2	$1,165
4-8 GB	HP-1533A	DDS-2	$1,360
5-10 GB	Exabyte-8505	8mm	$2,275
10-20 GB	DLT-2000	DLT	$3,599

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Capacity	Model No.	Seek	PHASER-I
230 mb	Fujitsu	30 ms	$675
1.3 GB	HP-C1716	23 ms	$2,099
1.3 GB	Maxoptix T-III	18 ms	$2,199

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Syquest 88	$48	Optical 230 MB	$30
Syquest 105	$54	Optical 1.0 GB	$100
Syquest 200	$76	Optical 1.3 GB	$95
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SONY	**CDU55**	**235/275**
280ms access time, 300Kb/sec transfer rate		
NEC	**2VMac**	**205/245**
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NEC	**3Xp**	**na/398**
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Toshiba	**QuadSpeed**	**340/380**
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NEC	**4Xe**	**445/485**
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Plextor	**4Plex**	**385/425**
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Digital Linear Tape Drives

Quantum DLT

Model	Capacity	Trans.Rate	Media	Ext.
DLT2000	**20 GB**	**2.5MB/sec.**	**DLT20**	**$2995**
DLT4000	**40 GB**	**3.0MB/sec.**	**DLT40**	**$Call!**

1 free cartridge with each DLT purchase

These drives are ideal for AV and network backup due to their advanced linear recording technology and a highly accurate tape guide system . DLT allows you to backup 150 to 180 MB per minute. DLT is your high capacity high performance backup solution.

Optical Drives

	Capacity		Access	Warranty	Ext.
Hewlett Packard	**1.3 GB**	1716T	23.5ms	1 Year	**2295**
MaxOptics	**1.3 GB**	Tahitti III	18ms	1Year	**2395**
Fujitsu	**230 MB**	M2512	30ms	1Year	**575**

1 free cartridge with each drive purchase

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Zero Footprint 10.75" x 9.75" x 2".....**$75**
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	Coolscan	$1499
UMAX	UC630/1260	$675/1240
	Vista S6	$760
	Powerlook	$3250

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	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
LPS Series	**170 MB**	14 ms	3600	128K	2 Year	**135**	**195**
LPS Series	**340 MB**	11 ms	4500	128K	2 Year	**155**	**215**
Trailblazer	**420 MB**	14 ms	4500	128K	3 Year	**185**	**245**
DSP3053	**535 MB**	9 ms	5400	512K	2 Year	**225**	**285**
Maverick	**540 MB**	14 ms	3600	128K	2 Year	**190**	**250**
Fireball	**540 MB**	11 ms	5400	128K	3 Year	**195**	**255**
Lightning	**730 MB**	11 ms	5400	128K	2 Year	**255**	**315**
Trailblazer	**850 MB**	14 ms	4500	128K	3 Year	**265**	**325**
Fireball	**1080 MB**	11 ms	4500	128K	3 Year	**349**	**409**
Empire	**2100 MB**	9.5 ms	5400	512K	5 Year	**890**	**950**
Atlas Series	**2.0 GB**	9ms	7200	1024K	5 Year	**925**	**985**
Grand Prix	**4200 MB**	8.6 ms	7200	512K	5 Year	**1135**	**1195**
Atlas Series	**4.3 GB**	9ms	7200	2048K	5 Year	**1495**	**1555**

	Capacity	Size	Seek	Cache	Warranty	Int.	Ext.
Daytona	**256 MB**	Powerbook 2..5"	17 ms	128K	1 Year	**215**	**275**
Daytona	**341 MB**	Powerbook 2..5"	17 ms	128K	1 Year	**295**	**355**
Daytona	**514 MB**	Powerbook 2..5"	17 ms	128K	1 Year	**395**	**455**

New Products MICROPOLIS MICROPOLIS New Pricing!!

	Capacity	Access	RPM	Cache	Warranty	Int.	Ext.
M4221	**2.1 GB**	8.5 ms	7200	512K	5 Year	**985**	**1045**
M4221Wide	**2.1 GB**	8.5 ms	7200	512K	5 Year	**1080**	**1140**
M1936	**3.6 GB**	11 ms	5400	512K	5 Year	**1195**	**1295**
M3243	**4.3 GB**	8.5 ms	7200	512K	5 Year	**1385**	**1445**
M3243Wide	**4.3 GB**	8.5 ms	7200	512K	5 Year	**1475**	**1535**
M1991	**9.0 GB**	12 ms	5400	512K	5 Year	**2195**	**2295**
M1991Wide	**9.0 GB**	12 ms	5400	512K	5 Year	**2295**	**2395**
Direct to Disk Recording AV Drives- BEST for Music and Video Storage							
M4221AV	**2.1 GB**	8.5 ms	7200	512K	5 Year	**1035**	**1095**
M1936AV	**3.6 GB**	11 ms	5400	512K	5 Year	**1245**	**1345**
M3243AV	**4.3 GB**	8.5 ms	7200	512K	5 Year	**1485**	**1545**
M1991AV	**9.0 GB**	12 ms	5400	512K	5 Year	**2325**	**2425**
M4221WideAV	**2.1 GB**	8.5 ms	7200	512K	5 Year	**1135**	**1195**
M3243WideAV	**4.3 GB**	8.5 ms	7200	512K	5 Year	**1595**	**1655**
M1991WideAV	**9.0 GB**	12 ms	5400	512K	5 Year	**2495**	**2595**

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M4200	**4.3 GB**	8.9 ms	7200	512K	5 Year	

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Quantum Grand Prix 2.0GB .....***Int. $890 Ext. $950***
Q2100, 5400RPM, 9ms seek, 5 year warranty

Seagate Barracuda 4.0GB .....***Int. $1495 Ext. $1555***
ST15150N, 7200RPM, 8ms seek, 5 year warranty

Seagate Seagate Seagate Seagate

	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
Hawk 2LP	**1.2 GB** ST31230N	9ms	5400	512K	5 Year	**535**	**595**
Hawk 4	**4.2 GB** ST15230N	9ms	5400	512K	5 Year	**1335**	**1495**
Barracuda 2LP	**2.5 GB** ST32550N	8ms	7200	1024K	5 Year	**1050**	**1110**
Barracuda 4	**4.2 GB** ST15150N	8ms	7200	1024K	5 Year	**1495**	**1555**
Barracuda 2Wide	**2.5 GB** ST32550Wide	8ms	7200	1024K	5 Year	**1125**	**1195**
Barracuda 4Wide	**4.2 GB** ST15150Wide	8ms	7200	1024K	5 Year	**1590**	**1650**
Elite 9	**9.0 GB** ST410800N	11ms	5400	512K	5 Year	**2595**	**2695**

FUJITSU FUJITSU FUJITSU FUJITSU FUJITSU FUJITSU

	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
M2684	**530 MB**	9ms	4500	256K	5 Year	**205**	**265**
M1606SA	**1.2 GB**	9ms	4500	512K	5 Year	**515**	**575**

HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD

	Capacity	Access	RPM	Cache	Warranty	Int.	Ext.
C3724SE	**1.2 GB**	9.5 ms	5400	512K	5 Year	**550**	**610**
C2490SE	**2.4 GB**	8.5 ms	6300	512K	5 Year	**1125**	**1185**

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Capacity	Seek	RPM	Int.	Ext.
88 MB SQ5110C	20 ms	3200	**$305**	**$365**
200 MB SQ5200	18 ms	3200	**420**	**480**
270 MB SQ3270	13.5 ms	3200	**420**	**480**

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SyQuest TECHNOLOGY Media

Capacity	Model	Warranty	Price
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88 MB	SQ800	5 year	**46**
105 MB	SQ310	5 year	**50**
200 MB	SQ2000	5 year	**74**
270 MB	SQ327	5 year	**63**

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Atto

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4-10 GB	1533A	4mm	**1235**	**1295**
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Capacity	Model	Media	Int.	Ext.
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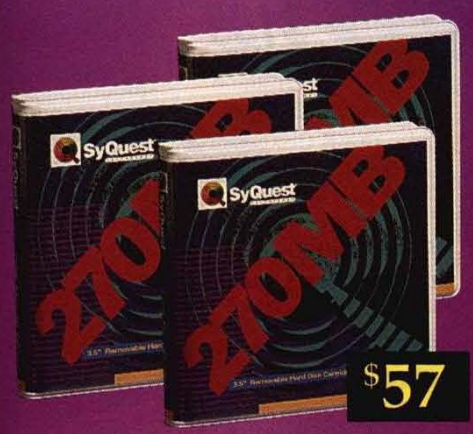

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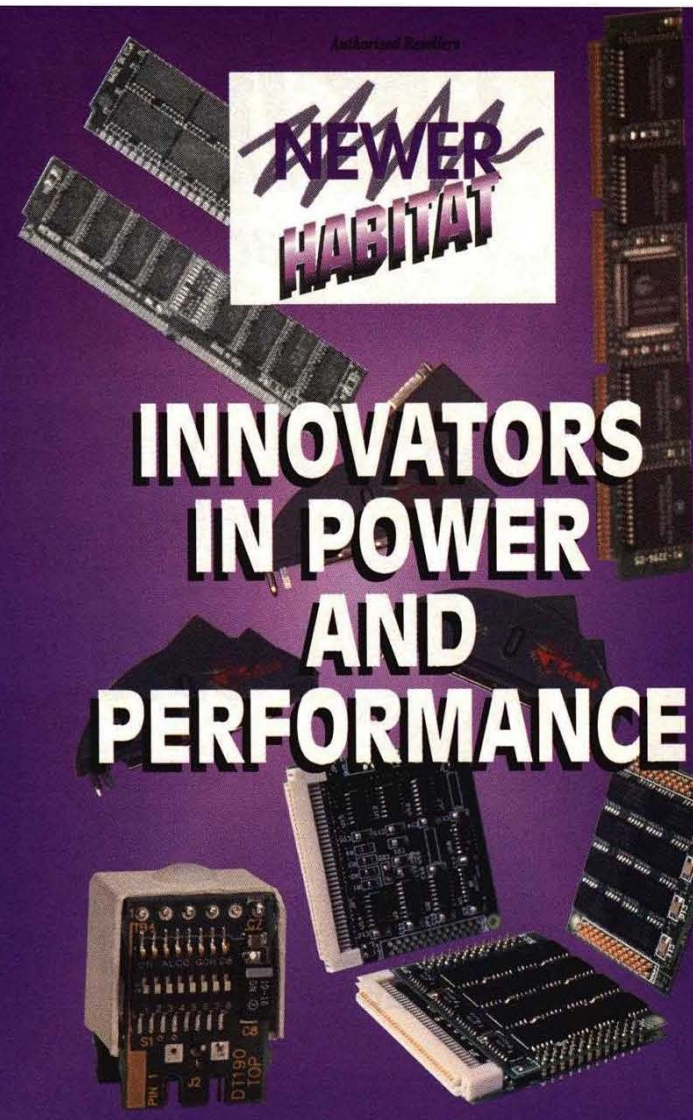

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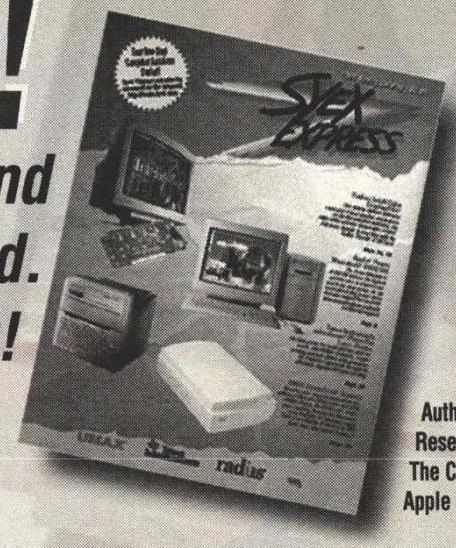

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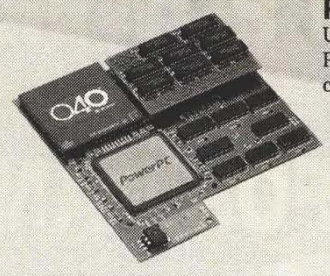

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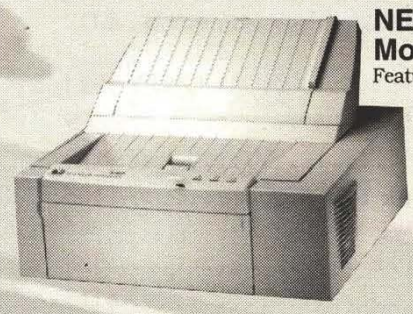

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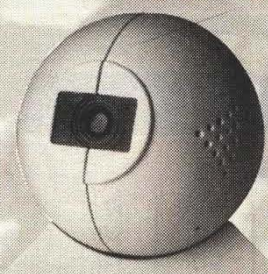

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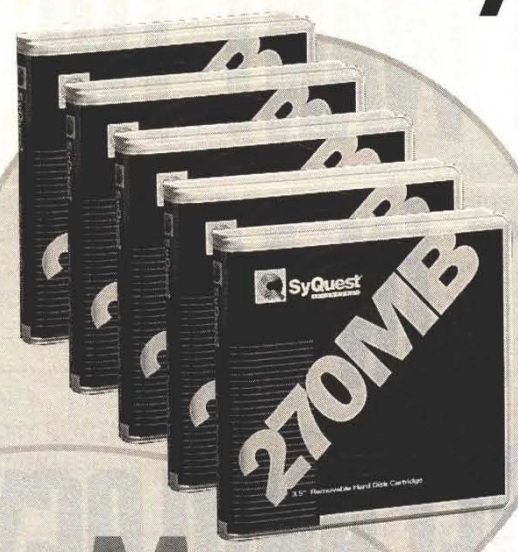

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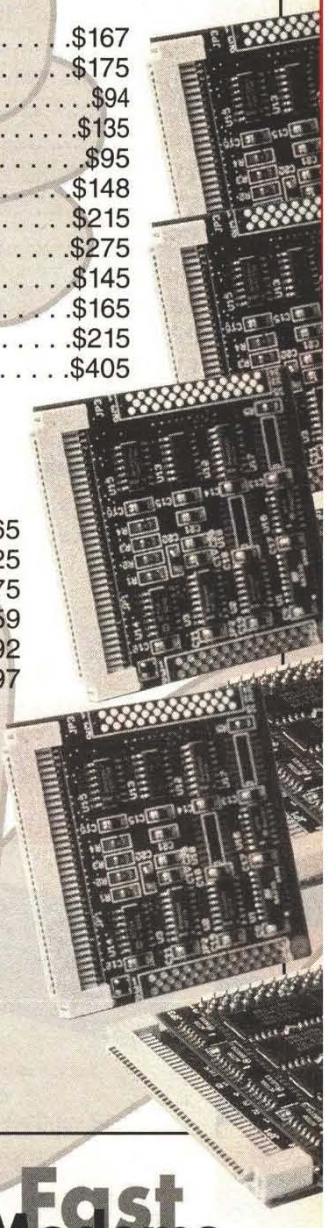

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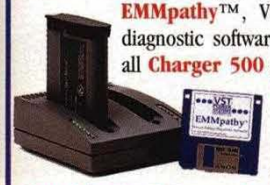

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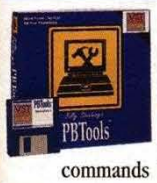

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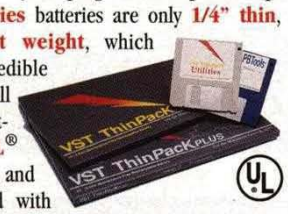

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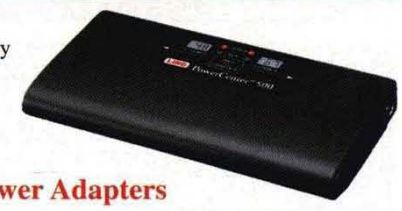

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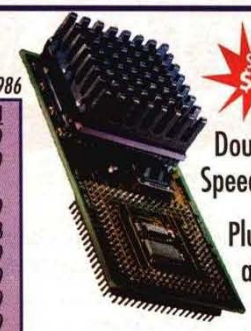

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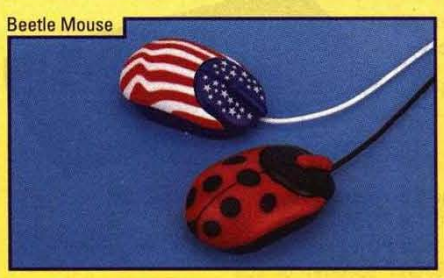

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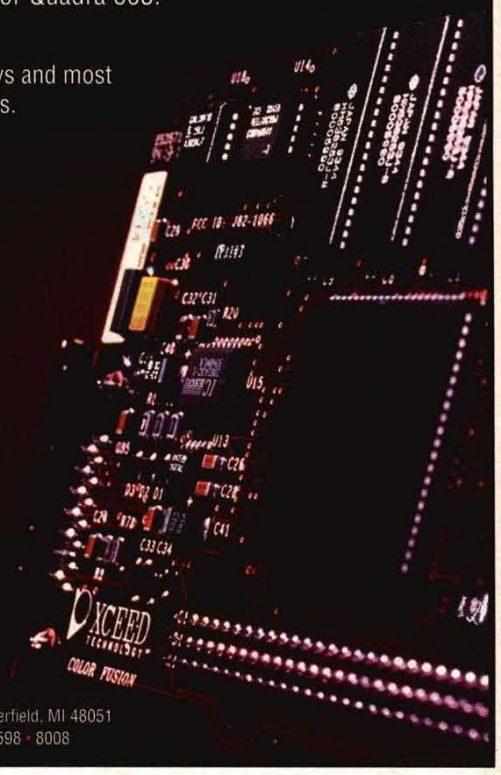

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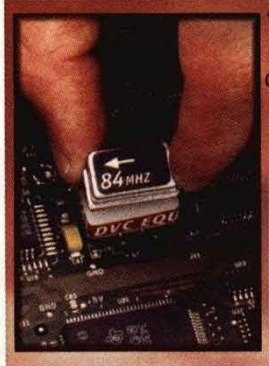

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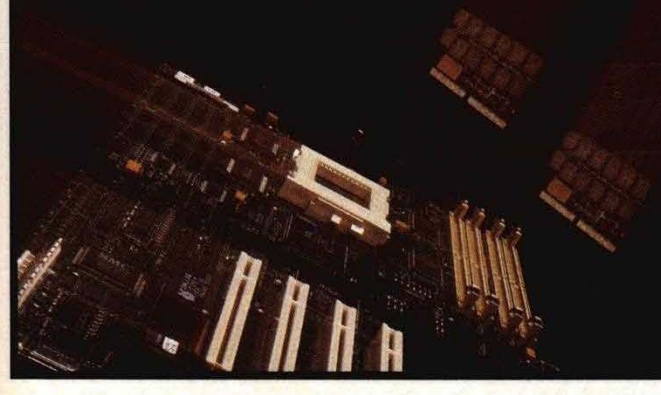

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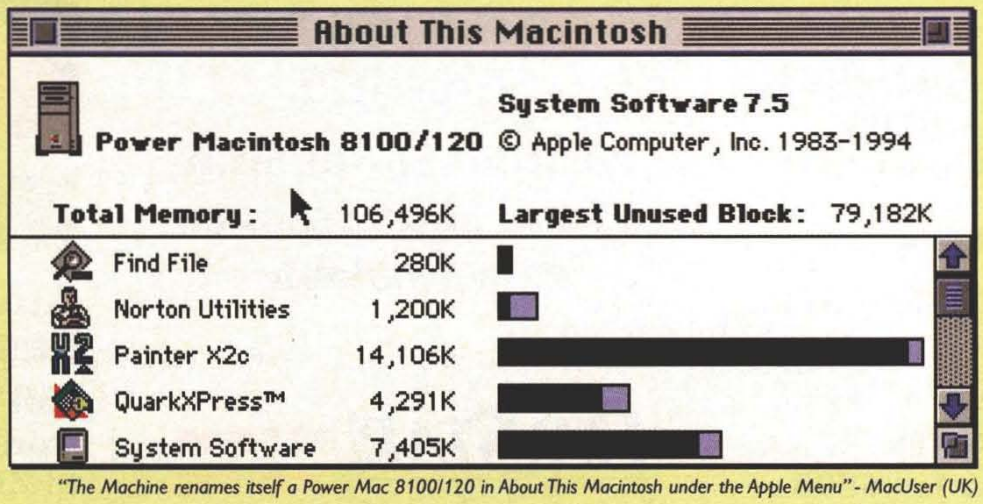

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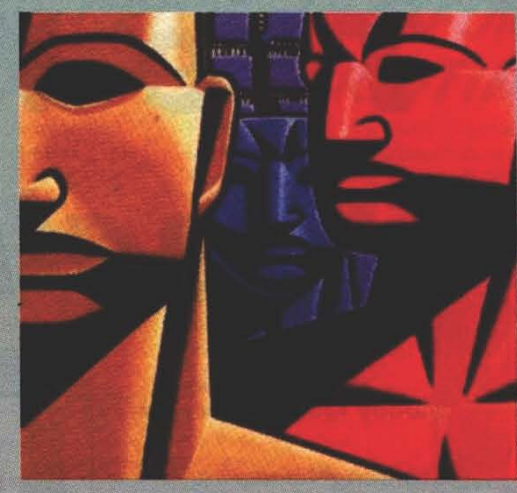

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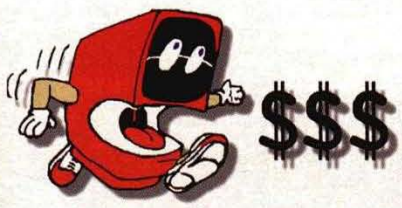

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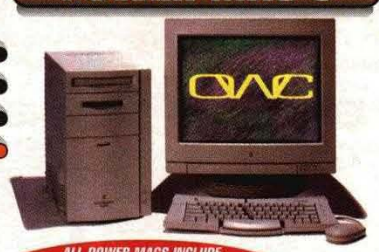

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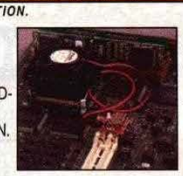

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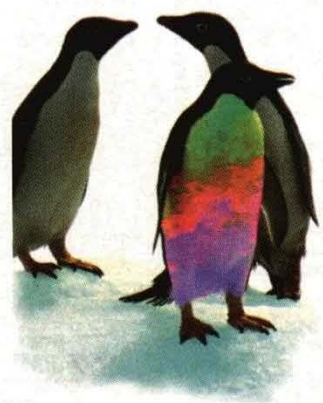

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- Data integrity guaranteed for 30 years!

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SyQuest Drives

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Model	Internal	External	dsc	
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SyQuest 105	$155	$195	$220	
SyQuest 88C	$255	$295	$320	
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Optical Drives

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- Economical storage of large color images and digital audio/video data
- Durable cartridges keep data safe for up to 30 years!

Model	Capacity	Size	External	dsc	
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MaxOptix-TIII	1.3GB	5.25"	$1989	$2039	
Sony 1.3GB	**1.3GB**	**5.25"**	**$1699**	**$1749**	SALE
Olympus 128	128MB	3.5"	$389	$439	
Fujitsu-230	**230MB**	**3.5"**	**$569**	**$619**	SALE
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- FWB FREE!

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365MB	10ms	$145	$205	$230	
540MB	10ms	$195	$255	$280	
730MB	10ms	$215	$275	$300	
1.0GB	10ms	$385	$445	$470	
1.4GB	9.5ms	$659	$719	$744	
2.1GB	9.5ms	$879	$939	$964	
4.2GB	**9.5ms**	**$1145**	**$1205**	**$1230**	SALE

IBM	Speed	Internal	External	dsc	
730MB	**10ms**	**$225**	**$285**	**$310**	SALE

Seagate	Speed	Internal	External	dsc	
1.0GB Hawk 1, 9ms		$519	$579	$629	
2.4GB Hawk 2, 9ms		$839	$899	$949	
2.4GB B'cuda 2, 9ms		$1039	$1099	$1149	
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NEC 17XE	17in, .25mm, 1280x1024	$979	
Apple 15	**15in, .25mm, 1024x768**	**$399**	SALE
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Radius 21	21in, .31mm, 1600x1200	$2069	

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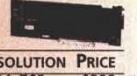
Video Cards



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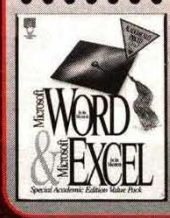

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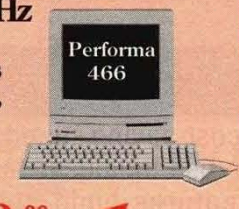

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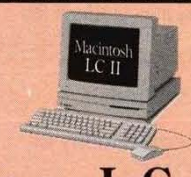

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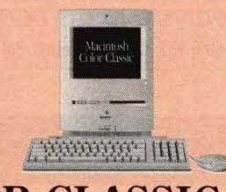

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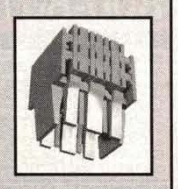

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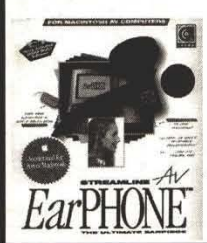

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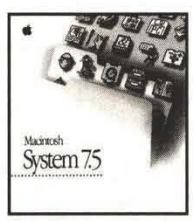

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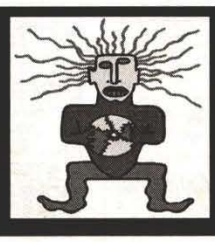

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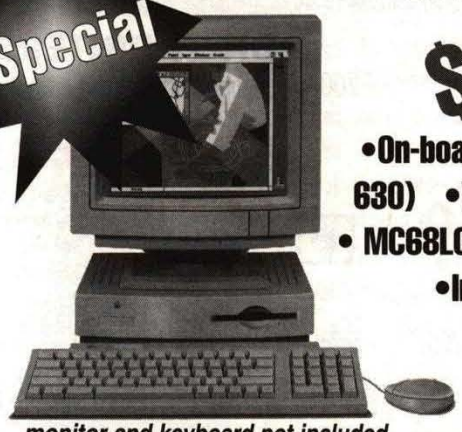

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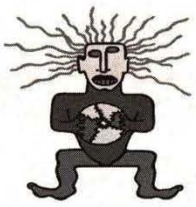

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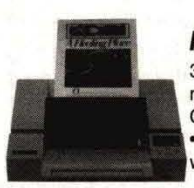

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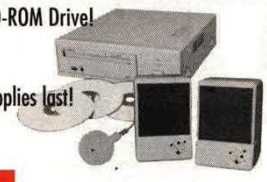

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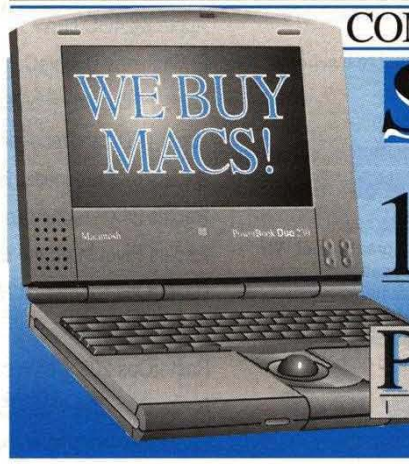

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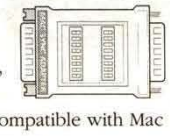

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LaserWriter

From Page 1

The new printer will reportedly support 600-dpi resolution and output 12 monochrome or three CMYK pages per minute. It will run on a 25-MHz AMD 29030 RISC processor and ship with 12 Mbytes of RAM, which can be expanded to 40 Mbytes.

The printer controller will incorporate a number of custom chips designed for compression, color-matching, I/O and direct memory access tasks.

Besides PostScript Level 2, the printer will feature Color PhotoGrade, a new version of Apple's halftoning technology, and Version 2.0 of the company's ColorSync color-management software.

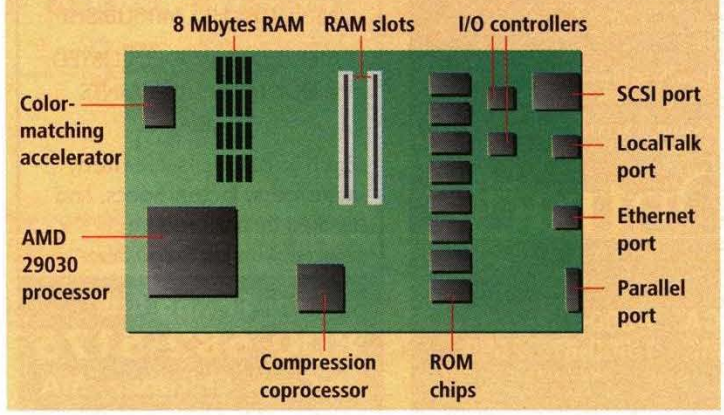
It will offer multiprotocol Ethernet, LocalTalk and bidirectional parallel interfaces as well as a SCSI port for a hard disk. The printer will output pages up to legal size, and it will ship with a 250-sheet letter-size cassette and a 100-sheet multipurpose tray; a universal paper tray and 250-sheet feeder will be available as options.

Apple declined to comment.

An Apple-branded color laser printer could make a dent in a slow-moving market, according to Marco Boer, a partner with IT Strategies, an analysis firm based in Hanover, Mass. Boer said the first generation of color lasers has failed to crack the office market, and Apple would do well to focus on its strengths with graphics users.

"Apple might have a small advantage because its business is so tied to desktop publishing," Boer said. "They may have enough luck and smarts not to tie the product so closely to the office market and instead target desktop publishing."

Color LaserWriter controller



Boer pointed to a number of recent announcements by vendors that have already shipped color laser printers that indicate they are under pressure to overcome a disappointing response to their products among business users:

- **Hewlett-Packard Co.** of Palo Alto, Calif., the leading printer vendor in the monochrome laser market, has announced it will offer selected users a 30-day free trial of its Color LaserJet. The aggressive direct-mail campaign is a "big sign that these things are not moving," Boer said. "HP didn't ever, ever have to do this before" to promote its output devices.
- **Xerox Corp.** of Rochester, N.Y., this month cut the price of its 4900 Color Laser Printer to $6,095 from $8,495. "Xerox is not doing well" with its color laser, Boer said.
- **QMS Inc.** of Mobile, Ala., recently introduced the magicolor LX, a new low-cost version of its Hitachi-based printer (see MacWEEK, March 13, Page 3). "QMS is losing their shirt," Boer said.
- **Tektronix Inc.** of Wilsonville, Ore., last week enhanced its Phaser 540 with a new version with the same $8,995 price tag. The Phaser 540 Plus offers a variety of firmware enhancements that speed output, the company said. The new 540 model also prints on legal-size as well as letter-size paper.

Boer said that, in contrast to its competitors, Tektronix's focus on graphics users has served the company better in the new field of color laser output. "Tektronix is right where they need to be," Boer said, because the company is "not chasing the potential business market." □

Apple to add laser, inkjet

Along with its first color laser printer, sources said, Apple next week will unveil a low-cost addition to its monochrome laser line as well as a portable color inkjet model.

The LaserWriter 4/600 PS will carry an ApplePrice of $929, sources said. The new model is reportedly based on a new 600-dpi, 4-page-per-minute Canon engine and will replace the company's 300-dpi Personal LaserWriter 320.

Sources said the PostScript Level 2 device includes a 16-MHz AMD 29200 RISC processor and 2 Mbytes of RAM, which can be expanded to 6 Mbytes.

The printer reportedly comes with software that enables users to print by dragging and dropping documents to desktop printer icons.

It will ship with LocalTalk and serial interfaces as well as a 100-sheet universal cassette.

The Color StyleWriter 2200, which will reportedly be available for an ApplePrice of $419, will be Apple's first portable color printer.

Sources said the 3-pound device measures about 12 by 6 by 2 inches. It is based on a Canon engine that includes separate cartridges for black and CMY inks. The device outputs at 720 by 360 dpi in monochrome and 360 by 360 dpi in color. According to sources, the printer can output up to 5 ppm in monochrome and generate a full-color page in about three minutes.

The Color StyleWriter 2200 also supports drag-and-drop printing, sources said. It connects to Macs via a serial port and runs on rechargeable batteries or AC power.

Apple declined to comment.

— By Matthew Rothenberg

PageMaker

From Page 1

PageMaker 6.0, giving users access to Apple's ColorSync 2.0 capabilities.

"The color handling is clever," said one source familiar with the upgrade. "You can import an image, then select any color model, install and use it."

PageMaker 6.0 will also be able to produce separations for HiFi Color, an emerging printing standard that uses extra inks in addition to CMYK.

The upgrade will add more controls for object handling, grouped under a new Arrange menu, sources said. A new Object Alignment and Distribution feature resembles that currently available in the PageTools Additions from Extensis Corp. of Portland, Ore.

Addressing another major user request, the upgrade will allow users to group, ungroup, lock and unlock items. PageMaker currently offers grouping only as an Addition. Version 6.0 will also offer nonprinting items.

An enhanced Page Sorter palette will let users easily change page order by dragging thumbnail views.

Trapping, previously an Addition, will reportedly be folded into the new version as a menu item, giving users controls over trap width, thresholds, size of text to track, ink-density values, whether to track imported objects and other attributes, according to sources.

In a bid for stronger image editing, PageMaker will offer Mask and Unmask as menu items, sources said. A new menu item will let users apply Adobe Photoshop effects to an image.

PageMaker 6.0 will add a Polygon tool. "It's a pretty brain-dead Polygon tool," said one beta user. "You can only draw symmetrical things, which you can then stretch proportionally."

Enhanced Find and Replace adds to the existing type-style searches by letting users search for such attributes as alignment; leading method; and type tracking, color and tint.

The upgrade will let users kern to .0001 em-space, a level of magnitude more precise than the current version. Expert Kerning, previously an Addition, will be included, offering automated control of letter spacing for selected text.

Interface changes will include new palettes for Scripts (offering more-direct support of scripting) and for Plug-ins, the new name for Additions that reflects Adobe's nomenclature for its other products.

Following through on its stated intention of making Acrobat technology a cornerstone for its product line, Adobe will give PageMaker 6.0 the capability to write files directly in Portable Document Format, the file format underlying Acrobat. Another feature aimed at on-line publishers is a bundled Plug-in that will generate HTML (Hypertext Markup Language) files.

New printing features will include the capability to print spreads. The application will automatically check what printer fonts are available each time it prints and will let users set up "styles" for various printers; for example, users will be able to specify that crop marks should be included when printing to a LaserWriter. Version 5.0 offers a similar capability as an Addition.

Adobe declined to comment. □

Radius expands circle of screens

Monitors extend to 1,600 by 1,200

By James Staten

Radius Inc. last week shipped two new 21-inch monitors each capable of displaying images at a maximum resolution of 1,600 by 1,200 pixels.

The PrecisionView 21, priced at $2,749, is based on a Sony Trinitron display with a 0.3mm aperture grille. It features multiple white-point settings from 6,500 to 5,000 Kelvin and dynamic-beam-focus technology for superior edge-to-edge focus and convergence.

The PrecisionView 21 replaces the SuperMatch 21•T XL, Radius said.

The MultiView 21, priced at $2,149, is based on a Matsushita tube with a 0.25mm dot pitch and Invar shadow mask. It supports white-point settings from 9,300 to 5,000 Kelvin and uses dual-focus dynamic-lens technology for increased focus and spot roundness, even in the corners. The MultiView 21 also supports two simultaneous video inputs.

Both monitors feature on-screen controls that allow users to adjust brightness, contrast, size, position, rotation, white point, convergence and several additional geometric settings. Nine custom setups can be saved. The two tubes are compliant with Energy Star and MPR-II standards for low power output and electromagnetic emissions. The PrecisionView 21 is covered by a one-year warranty providing on-site service or overnight replacement. The MultiView 21's one-year warranty provides five-day replacement of defective displays.

Radius Inc. of Sunnyvale, Calif., can be reached at (408) 541-6100 or (800) 227-2795; fax (408) 541-6150; support@radius.com. □

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Radius

From Page 1

sonal Power Systems division, which builds IBM's desktop computers. That division insisted that IMD not license the Mac OS as part of the agreement. However, the deal reportedly gives IBM the necessary experience to build its own Mac clones. "This gives IBM a backdoor route to the Mac OS," a source said.

In addition to the manufacturing deal, sources said Radius is negotiating with IBM for an unspecified cash infusion that will give IBM a stake in the company. Radius CEO Chuck Berger has not kept secret the fact that to help Radius more broadly enter the Mac clone market it is seeking a parner. He recently told MacWEEK that no investor has been signed.

Concurrent with its new partnership with IBM, Radius is close to revealing a technology transfer with Adobe of Mountain View, Calif. Adobe will reportedly purchase Cinepak, Radius' digital video software, and integrate it into Adobe's Premiere video editing program. Adobe will assume all marketing and development of Cinepak, sources said. Radius and Adobe will also co-develop and market a future product for the color publishing market, according to sources.

Radius' all-star lineup

IBM
- Build Radius 601- and 604-based Mac clones
- Possible investor

ADOBE
- Acquire Cinepak; incorporate it into Premiere
- Adobe executive to join Radius board of directors

INGRAM
- Exclusive distribution of Radius Mac clones

Along with the technology transfer deal, Radius is expected to announce that David B. Pratt, Adobe's senior vice president of the applications products division, will join Radius' board of directors.

Although financial terms of the two agreements are not known, both the IBM manufacturing deal and Adobe's acquisition of Cinepak have been characterized by sources as "very favorable" for Radius. One source close to IBM said the company will benefit by having an OEM client for its idle production facilities as well as lining up another PowerPC customer.

Radius and Adobe declined to comment. IBM could not be reached for comment. □

Thunder

From Page 1

8/1600 card will be the Sunnyvale, Calif.-based company's entry-level PCI card. According to sources, it will use a single custom chip for QuickDraw acceleration and resolution switching.

The 8/1600 card will ship with 2 Mbytes of video RAM, supporting 24-bit color at resolutions up to 832 by 624 pixels and eight-bit color to a maximum resolution of 1,600 by 1,200 pixels. An additional 2 Mbytes of VRAM will push 24-bit-color resolution up to 1,152 by 870-pixels.

Radius will offer four configurations of the Thunder 30, a high-performance PCI card aimed at the demands of pre-press applications. The new card will build on technologies Radius introduced on its Thunder IV line of $2,499 to $3,699 NuBus cards (see MacWEEK, Jan. 2, Page 34). According to sources, Thunder 30 boards will offer about three times the performance of comparable Radius NuBus models.

Thunder 30 cards will also accommodate a daughtercard incorporating four digital signal processors (DSPs) and a custom graphics chip, providing real-time CMYK-to-RGB color transformations and ColorEngine color-matching acceleration. They will support 30-bit color when used with Radius' Prosense colorimeter and compatible displays, sources said.

The $1,000 Thunder 30/1152 will come standard with 3 Mbytes of VRAM and support 24-bit color at up to 1,152-by-870-pixel resolution. Slated to ship with 6 Mbytes of VRAM, the $1,500 Thunder 30/1600 will offer 24-bit resolutions up to 1,600 by 1,200 pixels.

Pricing has not yet been set for a DSP upgrade for both cards.

Models with the multiprocessor daughtercard installed will ship under the ThunderColor moniker, sources said. The 3-Mbyte ThunderColor 30/1152 and 6-Mbyte ThunderColor 30/1600 will cost about $1,900 and $2,200, respectively.

Thunder and ThunderColor cards will come with Radius software that enables hot-key resolution switching and hardware pan and zoom features. They will also include Radius' ColorComposer color-calibration software as well as Adobe Photoshop filters that take advantage of the boards' features.

Radius declined to comment. □

Tsunamis

From Page 1

tion and long-term supply.

Sources said street pricing for the Power Macintosh 9500/120 16/1000/CD and the 9500/132 16/2000/CD will be about $4,450 and $5,100, respectively.

Analysts said the two configurations are likely to draw sales from graphics and multimedia professionals. "Pre-press and digital video folks will really like the high-end towers for their boost in performance," said Pieter Hartsook, editor of The Hartsook Letter in Alameda, Calif. "They will eventually gain wider acceptance over the next several months."

Only if Apple can build enough of them, observers said. "Apple has a way of manifesting shortages even when there aren't shortages — because of poor forecasting," said Joe Colletti, senior account executive for Source One Corp., a MicroAge Inc. corporate reseller franchise in Campbell, Calif.

Indeed, shortages of PowerPC chips, especially the 604, may hamper 9500 shipments, as well as put a crimp in the production of the rest of Apple's PCI lineup — the Power Mac 7200, 7500 and 8500 (see MacWEEK, May 29, Page 1). Those models are slated to ship Aug. 7, sources said.

A spokesman for distributor Intelligent Electronics Inc. of Exton, Pa., said it has received "tons of requests" from its more than 500 dealers nationwide. Meanwhile, a major mail-order supplier of Apple products said demand for PCI Macs is high among its customers.

But rank-and-file Apple dealers such as Jerry Hanlon of Bitzn-bytes Inc. in Concord, N.H., said users aren't "beating down the door to order it."

Added Sonny Cohen, CEO of Automated Offices Ltd. in Deerfield, Ill.: "The phone is not ringing off the hook for the 9500. We're still trying to fulfill 8100 orders."

Cohen and others consider the transition to PCI more radical than the 680x0-to-PowerPC jump a year ago. He said the move to PCI will require significantly more third-party support — especially from vendors new to the Mac market, such as ATI Technologies Inc. — to make it a success.

"Sure PCI will be great, but will it all run straight out of the box?" asked video producer Chris Cave, president of Cave Art Inc. in New York. He said producers will play wait-and-see before climbing on the PCI platform. "Given past performance by Apple and developers, it will take at least six months to shake out," Cave said.

The most recent published data from The Hartsook Letter's Macintosh Market Forecast estimates that the global market for 604-based Power Macs will be about 300,000 for the remainder of 1995. By comparison, shipments of the Power Mac 8100 — plagued by back orders — will total 150,000 units this year.

Unlike the 8100, however, insiders don't foresee manufacturing problems with PCI Macs. "The 604 is constrained right now, but it won't be a problem in a couple of months," said Philip Schiller, marketing manager at FirePower Systems Inc. of Menlo Park, Calif., a designer of PowerPC-based computers. "Apple is getting the lion's share of the production."

Bob Walter, technical director of Exhibit 3D, a 3-D modeling production house in Cincinnati, said he probably won't buy many of the speedy 9500s until the end of the year, when multiprocessor upgrades are available. "It's definitely the box I'm going to buy," he said. "But I want to make sure I'm buying machines that will last at least three to four years."

Apple declined to comment. □

Mac pricing due for trim

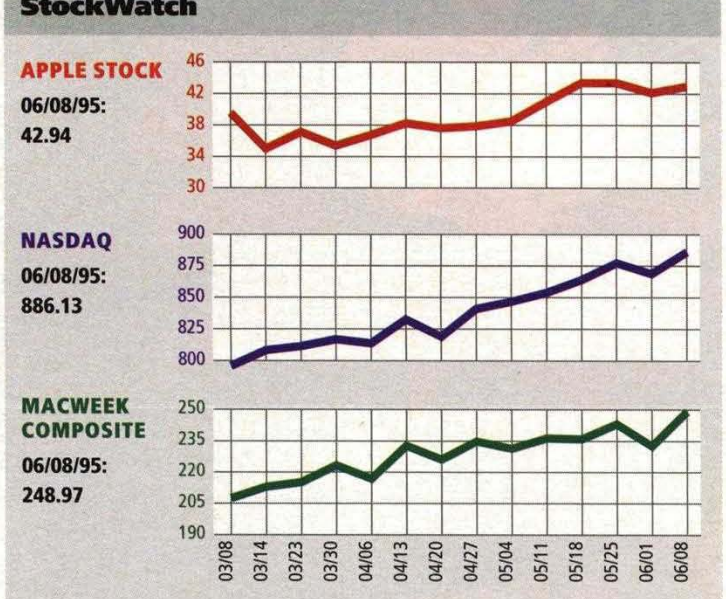
Apple this week will reportedly slash prices on some PowerBooks and cut the prices of current Power Macs in time for next week's introduction of the new Power Mac 9500 models.

Sources said the PowerBook 520c 4/160 and 4/240 will both fall in price roughly 12 percent. The PowerBook 540c 4/320 will be cut about 20 percent, while the 540c 12/500 with modem will receive a 14 percent decrease.

Apple will reportedly also cut the price of the Power Mac 6100/66 16/500/CD DOS Compatible by 7 percent and the 8100/110 16/2000/CD by 12 percent.

Apple was unavailable for comment. □

StockWatch



	06.08.95 CLOSE	WEEKLY % CHANGE
Apple	42.94	1.78
MacWEEK Composite*	248.97	7.10
SOFTWARE DEVELOPERS		
Adobe	56.50	7.75
Caere	8.00	-1.54
CE Software	2.97	3.26
Diehl Graphsoft	3.86	-7.46
General Magic	11.25	2.27
Macromedia	38.25	10.67
Microsoft	84.13	0.00
Novell	20.00	2.89
Oracle	35.63	0.00
Saber	8.00	3.23
Symantec	25.44	10.90
STORAGE		
Conner	13.25	2.91
Iomega	23.25	58.97
Maxtor	6.13	6.52
Pinnacle	9.88	-2.47
Quantum	23.50	9.30
Seagate	38.63	4.75
SyQuest	15.69	41.81

	06.08.95 CLOSE	WEEKLY % CHANGE
PERIPHERALS VENDORS		
AmeriQuest	2.38	0.00
Asanté	3.88	0.00
Focus	1.44	-8.91
Global Village	14.13	2.73
HP	69.88	2.57
QMS	5.63	2.27
Radius	12.13	16.17
RasterOps	4.63	12.12
Shiva	38.60	1.32
Tektronix	43.75	-4.37
DISTRIBUTORS		
CompUSA	27.63	2.79
IE	13.13	6.60
Merisel	6.13	-2.00
Tech Data	10.59	3.35
INDUSTRY INDICATORS		
Compaq	39.63	-0.94
IBM	89.25	-5.43
Intel	113.81	-0.82
Motorola	60.63	-0.82
SGI	38.00	-3.18
NASDAQ	886.13	1.99

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, General Magic, Global Village, Macromedia, Radius, RasterOps, Shiva and SyQuest. Source: Nordby International Inc.*

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Solutions covers desktop **videoconferencing systems** that offer real-time work environments for geographically dispersed employees.

JUNE 26

This week's Solutions takes a look at **e-mail packages** that have integrated groupware capabilities.

JUNE 26

What does it take to set up and manage a **Web server**? Find out in this issue's Gateways Extra.

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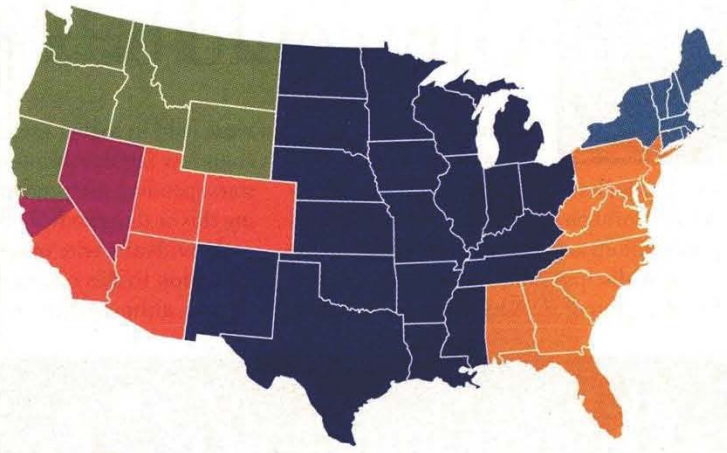

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Guy could be a jolly good Fellow

If image weren't everything, there would probably be a lot less emphasis in the modern corporate world on the subtleties of multimedia presentations and a lot more emphasis on the actuarial disciplines and other equally mind-numbing pursuits. And, of course, if reality were held in higher esteem, there'd be precious few fabulously and otherwise wealthy stars spending their moonlight hours hawking this or that product or corporate culture.

As with any trite observation, there's an exception to this one that proves its truthfulness, although this exception was so unexpected that the Knife, with his suspicious nature still well intact, nearly filed it with other tips from the fever-affected.

His incredulity was not aroused by a tip that Guy Kawasaki, one-time Mac evangelist and longtime master of the art of self-promotion, is to be appointed an Apple Fellow, a title previously reserved for the technically literate. After all, if one is endowed with a tenacious persistence and a prominent enough pulpit as is our subject, the endless blowing of one's own horn was bound to garner a large reward of some kind. The Knife only doubted that Apple would want to take this very effective mouthpiece back inside the tent.

The title hasn't been finalized yet, but this curious turn of events could hardly have been more timely. Wherever you find Mac people gathered, you hear the same complaint: Apple, after all these years, still doesn't know how to spread the Mac gospel. If it were not so, there'd be a lot less worry about the threat of Mac-less Windowsism dominating the world's desktops. So if it turns out that Kawasaki and Apple can come to terms, it might be a good thing for everyone. After all, when you consider the publicity he has generated by force of will alone, it may soon become impossible to find anyone anywhere on the planet who hasn't witnessed his proselytizing.

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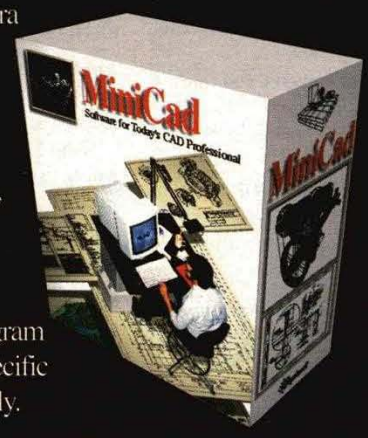

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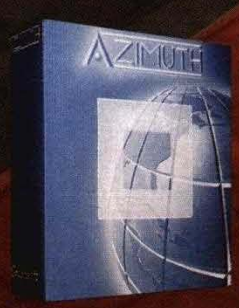

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Nice work

You should have heard the rumblings here and there from the Mac 5200 LC crowd. Those otherwise happy owners of the first PowerPC 603-based Macs are complaining that Microsoft Office operates too slowly. One experienced user reported that on his 5200 LC he was unable to take Word for a drag, much less run it, in less than 32 Mbytes of RAM, once the truckload of Office code was also installed.

The Knife's personal private geek guru came up with a plausible explanation in short order, pointing out that such would be the case if Microsoft's compiler used POWER instructions, which everyone knows are fine on the 601 but which run in emulation mode on the 603- and 604-based Power Macs.

Movie version

Lately you may have read reports in less reliable journals stating flatly that QuickTime for Windows is incompatible with the current beta of Windows 95, a "fact" reportedly verified by Apple. When the Knife sent his people to call on Apple, they returned with Apple's observation that since Microsoft refuses to supply Apple with the most recent beta of Windows 95 or the new game developers API, it is in no position to comment.

Not run it

QuarkXPress users sure expect a lot. Here they finally get the Word 6 filter that lets them import files created in that popular format into XPress, and they're complaining that to use it they must first install several megabytes of OLE code. Their complaint is the only legal way to get that code is to purchase a Word 6 license. The nerve of some people. □

While you were steeling your nerves to pass on your tip to the Knife at (415) 243-3544, fax (415) 243-3651, Internet (mac_the_knife@macweek.ziff.com), AppleLink (MacWEEK) or CompuServe/ZiffNet/Mac, the Knife was preparing a MacWEEK mug for you.

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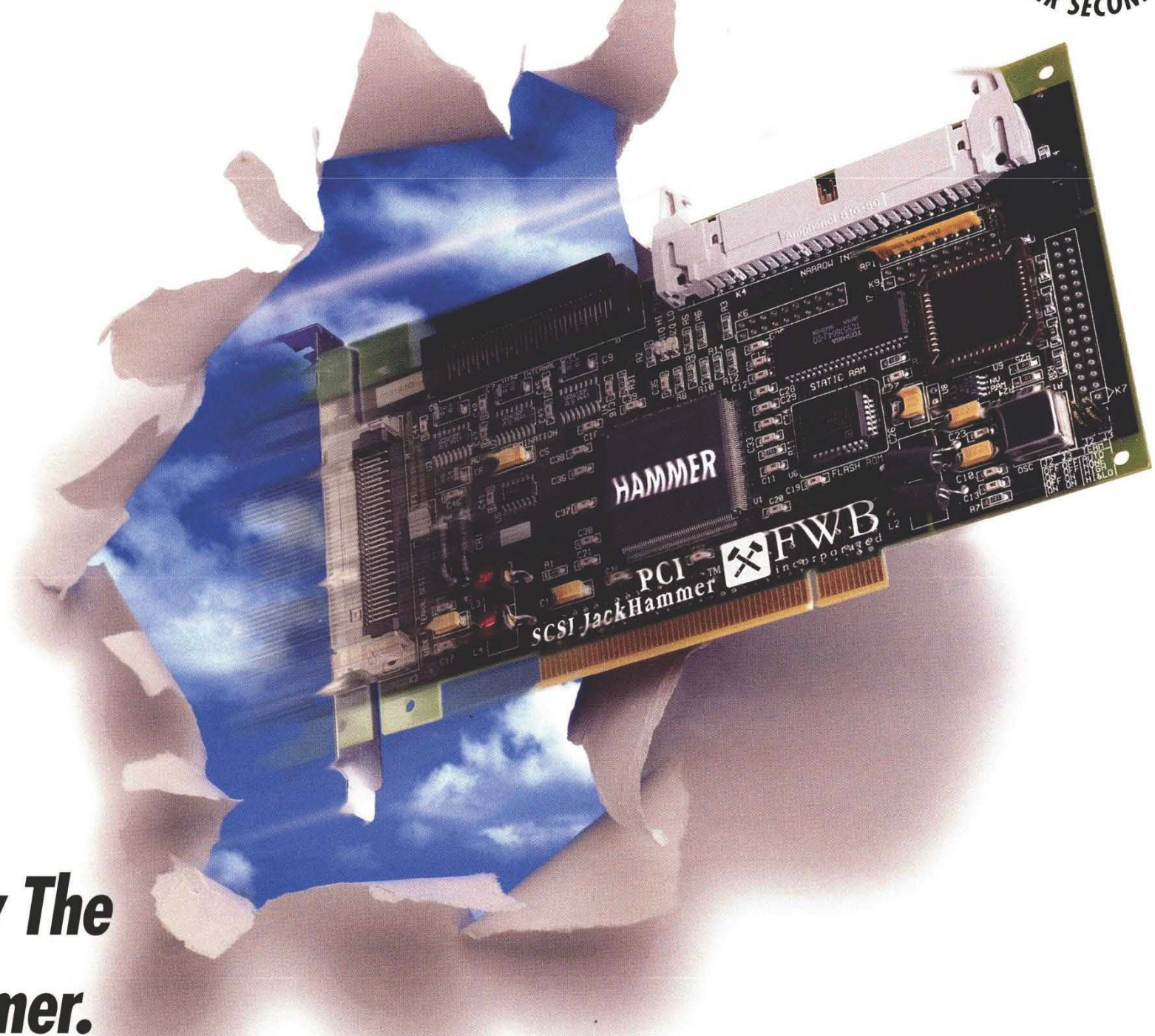

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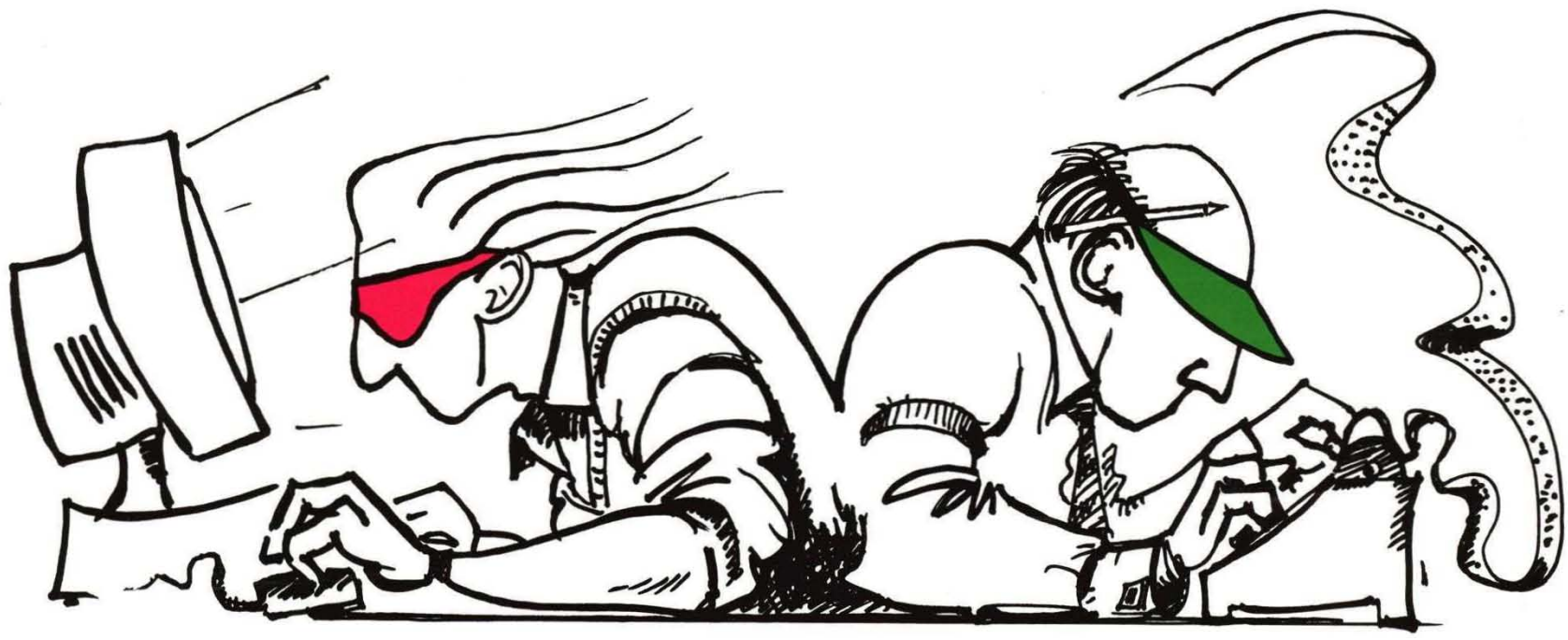

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